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Board of Public Works

SIXTY-EIGHTH ANNUAL REPORT

also the Fifth Annual Report of the Board of Public Works, and the Chief Engineer of Public Works, Acting as a Joint Board in the Management and Control of the State Public Parks and Pleasure Resorts of Ohio

to the Governor of the State of Ohio for the Year Ending November 15

1906



SIXTY-EIGHTH ANNUAL REPORT.

OF THE

BOARD OF PUBLIC WORKS

ALSO THE

Fifth Annual Report of the Board of Public Works, and
the Chief Engineer of Public Works, Acting as a
Joint Board in the Management and Control of the State Public Parks and
Pleasure Resorts of Ohio.

TO THE

Governor of the State of Ohio

FOR THE

Year Ending November 15, 1906.



COLUMBUS, ORIO: F. J. HEER, STATE PRINTER, 1907.

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OFFICE OF BOARD OF PUBLIC WORKS.

COLUMBUS, OHIO, November 15, 1906.

To his Excellency, Andrew L. Harris, Governor of Ohio:

SIR: — I have the honor to transmit to you herewith the sixty-eighth annual report of the Board of Public Works.

GEO. H. WATKINS,
President Board of Public Works.

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The Sixty-Eighth Annual Report

OF THE

BOARD OF PUBLIC WORKS.

HON. ANDREW L. HARRIS, Governor of Ohio.

SIR: — The sixty-eighth annual report of the Board of Public Works of Ohio for the fiscal year ending November 15, 1906, is herewith presented.

As required by law, the Board was reorganized on the second Tuesday of February, 1906, at which time Hon. Wm. Kirtley, Jr., of Defiance County, took his seat as a member of the Board, having been re-elected in November, 1905.

Having given a bond in the sum of \$30,000.00, which was approved by the Governor and filed with the Treasurer of the State, he was sworn in and assumed the duties of the office.

Hon. Geo. H. Watkins, being the senior member, was, agreeable to a rule of the Board, elected President for the ensuing year..

Hon. B. W. Baldwin, of Ashtabula County, having been appointed a member of the Board to fill the unexpired term of the late Richard B. Crawford, and having filed his bond in the sum of \$30,000.00, and taken the oath of office took his seat as a member of the Board.

MEMBERS OF THE BOARD.

NAME.	RESIDENCE.	EXPIRATION OF TERM.
Geo. G. Watkins	Portsmouth	Second Tuesday in Feb'y, 1907
Wm. Kirtley, Jr	Defiance	Second Tuesday in Feb'y, 1909
B W Baldwin	Tefferson	Second Tuesday in Feb'y, 1909

For the convenience of the Board, the public works of the State were divided into three grand divisions same as heretofore, to-wit:

Grand division No. 1, embracing that portion of the Ohio Canal extended from Cleveland to Muskingum slack water at Dresden, including the Six Mile remnant of the Walhonding Canal, 19 miles of which was abondoned by an act of the General Assembly (see House Bill No. 508, passed April 27, 1896) making a total of 157 miles.

Grand division No. 2, embracing that portion of the Ohio Canal extending from Dresden Junction to Portsmouth, including the Columbus

Feeder, a distance of 169 miles. Also the State's reserved rights in the Hocking Canal.

Grand division No. 3, all of the Miami and Erie Canal extending from Cincinnati to Toledo, including the feeders and reservoirs.

OFFICERS BY APPOINTMENT.

CHIEF ENGINEER — Charles E. Perkins, Akron, appointed by the Governor; term expires May 22nd, 1908.

Assistant Engineer — Samuel Bachtell, Columbus, appointed by the Board; term expires second Tuesday in February, 1908.

Secretary — W. H. McClintock, Defiance, appointed by the Board for the year ending second Tuesday in February, 1907. Died March 24th, 1906. W. E. Thompson, of Ironton, appointed by the Board to fill unexpired term.

ASSISTANT SECRETARY — Chas. W. Diehl, Cambridge, appointed by the Board for the year ending second Tuesday in February, 1907.

CHIEF CLERK LAND DEPARTMENT — Wheeler C. Wikoff, appointed by the Board for the year ending second Tuesday in February, 1907. Resigned August 15th, 1906.

Engineer Land Department — Edward E. Booton, Patriot, appointed by the Board for the year ending second Tuesday in February, 1907.

DRAUGHTSMAN — Amos H. Sawyer, Columbus, appointed by the Board for the year ending second Tuesday in February, 1907.

Messenger — F. W. Schaub, Columbus, appointed by the Board; term expires second Tuesday in February, 1907.

SUPERINTENDENTS.
(Term expires March 31, 1907.)

Name.	Location.	Yearly Salary.
Chas. Hatch Chas. H. Geidel Harry R. Morris Chas. Cooper John O'Connor H. W. Meacham	Coshocton Portsmouth Reading Dayton	\$1,700 00 1,700 00 1,700 00 1,700 00 1,700 00 1,700 00

COLLECTORS ON MIAMI AND ERIE CANAL.

(Term expires March 31, 1907.)

Name.	, Location.	Yearly Salary.
Chas. Wittich D. H. Hancock H. W. Myers Jos. A. Claypool W. A. Moxley Frank C. Davies Elmer Wambold E. C. Booth J. W. Sullivan Fred. Maag	Defiance Delphos St. Marys Piqua Dayton Middletown Lockland	\$600 0 400 0 420 0 250 0 500 0 600 0 400 0 550 0

COLLECTORS OHIO CANAL.

Name.	Location.	Yearly Salary.
Jas. M. Jones. J. H. Morrison. Mrs. Margaret S. Harvey. David Atwater W. H. Wilson. W. H. Kirkendall. W. H. Kirkendall. W. H. Kirkendall. W. H. Kirkendall. Quimby Climer	Akron Canal Dover Massillon Roscoe Newark Carroll Columbus Circleville	420 00

LOCK TENDERS.

MIAMÍ AND ERIE CANAL.

Name.	Location	Monthly Salary.
Geo. Maccabee John Allen H. C. Bortel J. R. Mapes Chas. Hauchett Mrs. S. Rose Wesley Koley A. Bolmer James R. Byrum Mrs. A. M. Trowbridge A. E. Shaffer, patrolman from Sherman Galispie, patrolman from.	Miami Providence Feeder Locks Nos. 42 and 43 Lock 41, waste way Independence Defiance Lock No. 32 Lock 14 Feeder Grand Reservoir Waterville to Otsego	15 00

LOCK TENDERS - Concluded.

MIAMI AND ERIE CANAL.

Name.	Location.	Monthly Salary.	
Wm. Smith, patrolman from	Ottoville to Delphos	35 0	
James Kohn, patrolman from	Delphos to Spencerville	40 0	
Wilson Fosnight, patrolman from	Spencerville to St. Marys	30 0	
Wesley McDonald, patrolman	Grand Reservoir	60 0	
Julius Powell	Loramie Reservoir	10 0	
A. O. T. Andrus	Lewistown Reservoir	10 0	
Chas. Shafer	Port Jefferson	10 0	
Theo. Gates	Sidney	3 0	
Wm. Shaffer	Summit Level	3 0	
C. F. Thomas	Piqua	10 0	
Jas. Maley	Piqua	10 0	
Geo. Dixon	Still House Lock	25 0	
Josiah Couch	Troy	3 0	
Louis Shaffer	Troy Feeder Lock	12 0	
Elmer Sherdian	Picayune Lock	$ \begin{array}{c} 10 \ 0 \\ 25 \ 0 \end{array} $	
John Wood	Dayton	25 U 5 0	
Daniel Tehan	Dayton waste gates	10 0	
Wm. Sprow	Snyders' mill	5 0	
Simon Strader	Carrollton	. 20 0	
Wm. Meyers	Miamisburg	20 0	
J. C. Gebhart	Sunfish Lock	15 0	
J. D. Beatty.	Franklin	10 0	
Frank Dine	Middletown Feeder	40 0	
Andy Barnickle	Middletown	10 0	
Syl. Fleming	Amanda	18 0	
J. E. Rupp.	Rockdale	10 0	
I. N. Abott	Hamilton	20 0	
W. H. Kemp.	Rialto	10 0	
I. W. Gorman.	Crescentville	10 ŏ	
James Aylward	Lockland	22 0	
Theo Reutinger	Port Union	2 5	
J. N. Abbott	Hamilton	20 0	
Lenard Herzog	Dwyer's	10 0	

LOCK TENDERS.

ERIE CANAL.

Name.	Location.	Monthly Salary.	
Irwin Murphy L. Seeley Chas. Lewis Chas. Savacool S. P. Wygandt Selam Woods W. M. Ridwell Wm. Hublinger Wm. Lovell Wm. S. Smart	Peninsula Yellow Creek Akron Locks Clinton Reservoir Massillon Wolf Creek Trenton	\$20 00 20 00 20 00 45 00 20 00 5 00 5 00 20 00 20 00	

LOCK TENDERS - Concluded.

ERIE CANAL.

Name.	Location.	Monthly Salary.
Wm. S. Shore	Dresden Licking Reservoir	10 00 15 00
John A. Spurgeon	Licking Feeder Lockville Lockville	25 00 5 00
J. W. Koch Henry Laughhorn	Circleville Dam Three Locks	15 00 10 00

In presenting this our 68th Annual Report to your Excellency, we would respectfully call your attention to the report of the Chief Engineer of the Public Works of Ohio, in relation to the water ways of the State said report being attached herewith and the statements and recommendations as made being fully endorsed by this Board.

We beg to say that the policy by the several Acts and Appropriations made by the 76th and 77th General Assemblies for the Improvement of the Northern Division of the Ohio Canal between Cleveland and Dresden, and the Miami and Erie Canal, are being closely adhered to, and the work in connection therewith is being done in a good and substantial manner, which we believe when finished, will redound to the credit of the Department and to the benefit of the commonwealth.

The Department has been greatly embarrassed in carrying on its work, on account of the scarcity and high price of labor, and in this respect have suffered alike with other improvements that are being made throughout the entire country.

It is hoped that the entire improvement as contemplated by the Appropriations made by the past Assemblies, will be entirely completed by early next fall, at which time the Department hopes to be able to prove, by the improvement itself, the wisdom for this general improvement of the canals.

We still adhere to the belief that any movement that may be on foot, looking to the sale or abandonment of the canals of the State, would be taking a step backward in the material and commercial interests, and the future prosperity and growth of the State at large.

We also call attention to the financial statement of the Secretary which accompanies our report showing the receipts and expenditures in detail, incident to the repairs and maintenance of the several canals of the State during the past fiscal year.

It was a sorrow that we had to record the death of our colleague, The Hon. Richard B. Crawford, who died at his home in Massillon, on October 17th, 1906. Mr. Crawford was a man of high principles and earnest and honest endeavors, and as an expression of our sorrow and the great respect in which he was held, our Board and the employees of this Department adopted a resolution upon the death of Mr. Crawford, which was spread upon the minutes and an engrossed copy of which was transmitted to the family of the deceased.

We beg to acknowledge the favorable services and assistance rendered us by the Chief Engineer of the Public Works, the Assistant Engineer, Secretary, Clerk, and the other attachees of the Department and the uniformly kind and courteous treatment received from them in the discharge of our duties.

Respectfullyy submitted,

GEO. H. WATKINS,
W. KIRTLEY, JR.,
B. W. BALDWIN.
Board of Public Works of Ohio.

Columbus, Ohio, November 15th, 1906.

Note — While Mr. Baldwin signs this report, he did not receive his commission until the 13th day of November, 1906, two days before the end of the fiscal year.

REPORT OF SECRETARY.

To the Honorable Board of Public Works.

Gentlemen: — I herewith present my report of the receipts and expenditures of your honorable Board during the fiscal year ending on the 15th day of November, 1906.

Very respectfully,

W. E. THOMPSON,

Secretary.

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FINANCIAL STATEMENT OF BOARD OF PUBLIC WORKS.

The amount of collections from the public works of Ohio, for the fiscal year ending November 15th, 1906, as shown by the Collectors in their weekly reports, is given in the following tables:

MIAMI AND ERIE CANAL.

Offices.	Tolls.	Water Leases.	Pipe Permits.	Land Leases.	Totals.
Cincinnati Lockland Middletown Dayton Piqua St. Marys *Delphos Defiance Napoleon Toledo	\$1,908 03 638 11 109 92	\$9,066 05 	\$4,489 06 262 00 891 15 246 00 686 00 1,317 70 530 29 168 00 10 00 500 50	\$6,973 00 40 00 3,159 50 7,151 50 1,066 10 7,526 80 118 76 111 02 69 00 614 35	\$22,436 14 940 11 5,684 57 9,818 42 3,871 47 10,419 00 2,283 15 605 22 3,657 82 3,999 93
Total	\$4,037 55	\$23,745 55	\$9,100 70	\$26,830 03	\$63,713 83

^{||} Oil royalty counted in land rentals, \$6,759 70. * Oil royalty counted in land rentals, \$28.11.

OHIO CANAL - NORTHERN DIVISION. '

Offices.	Tolls.	Water Leases.	Pipe Permits.	Land Leases.	Totals.
Cleveland	\$775 80 242 11 471 97 1,258 86 \$2,748 74	\$288 00 664 18 405 00 1,999 60 \$3,356 78	\$2,236 94 19,678 00 	\$555 38 736 10 2,112 00 120 12 717 00 \$4,240 60	\$2,792 32 21,477 90 3,018 29 1,608 75 4,818 65

^{*} Sale of land counted in land rentals, \$2,100.

OHIO CANAL - SOUTHERN DIVISION.

Offices.	Tolls.	Water Leases.	Pipe Permits.	Land Leases.	Totals,
*Newark †Carroll Columbus Circleville Chillicothe Waverly Portsmouth Total		\$15 00 146 00 \$161 00	\$1,181 00 207 00 392 83 220 50 77 00 \$2,078 33	\$2,497 73 1,257 50 2,774 60 298 50 12 00 39 00 21 00 \$6,900 33	\$3,703 73 1,464 50 3,167 43 519 00 240 00 92 33 21 00 \$9,207 99

^{*} Sale of land counted in land rentals, \$40. † Sale of land counted in land rentals, \$30.

RECAPITULATION.

CANALS.

Offices.	Tolls.	Water Leases.	Pipe Permits.	Land Leases.	Totals.
Miami & Erie	\$4,037 55	\$23,745 55	\$9,100 70	\$26,830 03	\$63,713 83
Ohio — N. Div	2,748 74	3,356 78	23,369 79	4,240 60	33,715 91
Ohio — S. Div	68 33	. 161 00	2,078 33	6,900 33	9,207 99
Total	\$6,854 62	\$27,263 33	\$34,548 82	\$37,970 96	\$106,637 73

NOTE.

Amount received by State Treasurer from Canal Collectors and cer-	•
tified to Auditor of State for the fiscal year ending November	
15, 1906	\$98,944 11
Amount collected by Canal Collectors prior to Nov. 15, 1906, but not	
received by State Treasurer until after close of fiscal year ending	
Nov. 15, 1906	7,693 62

Note:—There was sold by the Ohio Canal Commission on Feb. 12th, 1906, at public auction, in the City of Akron, a tract of land for the sum of \$1,980.00, which amount was credited to the Canal Repair Fund Northern Division Ohio Canal.

COLLECTIONS AND APPROPRIATIONS.

The amount of revenue received from all sources for the fiscal year ending November 15th, 1906, as certified to the Board by the Auditor of State, was as follows:

RECEIPTS.

COLLECTIONS MIAMI AND ERIE CANAL.

•			
Cincinnati—	\$21,085 49		
Lockland	972 97		
Middletown	5,678 04		
Dayton	9,803 87		
Piqua	4,692 73		
St. Marys	10,386 54		
Delphos	1,685 02		
Defiance	606 82		
Napoleon	3,640-01		
Toledo	4,144 87		
-	· · · · · · · · · · · · · · · · · · ·	\$62,696	36
COLLECTIONS OHIO CANAL - NORTHERN DIV	ISION.		
Cleveland	\$2,670 32		
Akron	17,798 65		
Massillon	774 56		
Canal Dover	1,606 11		
Roscoe	3,764 85		
-		\$26,614	49
COLLECTIONS OHIO CANAL - SOUTHERN DIV	ision.		
Newark	\$2,551 73		
Carroll	1,702 00		
Columbus	4,579 03		
Circleville	462 17		
Chillicothe	249 00		
Waverly	89 33		
-		\$9,633	26
Total		\$98,944	11
Deduct collections from public parks which is credited to the			
· '	•	*00.007	
Add balance in treasury November 15, 1905		\$92,387	
•			
Total		\$257,094	22
General appropriations	• • • • • • • • • • • • • • • • • • • •	61,700	00

Special appropriations, to-wit:		
Reconstruction Ohio Canal, Cleveland to Dresden	100,000	00 ·
Reconstruction M. & E., Davton to Cincinnati	100,000	00 -
Rebuilding M. & E. north of Dayton	5 0 °, 000	00 ·
Repairing banks Lewistown Reservoir	4,767	00-
Investigating dynamiting cases	5,000	00
Building embankment at Lockbourne	900	00
Repairing damage by flood, M. & E. Canal	10,270	33
Total	\$5 89.731	 55-

DISBURSEMENTS.

The following checks upon the Auditor of State were issued to the several Superintendents of canal repairs and others, on account of the maintenance and repairs of canals, salaries, etc., in payment of the itemized bills filed in the office of the Auditor of State, copies of which are incorporated in this report under the head of "Abstracts of Money Paid Out," showing to whom, for what purpose and the fund from which said accounts were paid, to-wit:

ON ACCOUNT OF THE MIAMI AND ERIE CANAL.

Date.	To Whom Issued.	Name of Appropriation.	Amount.
1905.	<u> </u>		:
Dec. 12	Chas. Cooper	M. and E. Canal	\$1,900 00
12	Iohn O'Connor	M and F Canal	1,900 00
12	H. W. Meacham	M. and E. Canal	1,800 00
12	Chas Cooper	Locks Cincinnati to Dayton	1,103 69
12	Chas. Cooper	Aqueducts Cincinnati to Dayton.	572 79
12	John O'Connor	Aqueduct Mad River	450 75-
` 12	John O'Connor	Repairing banks Lewistown Res.	1.290 09
12	John O'Connor		993 34
12	H. W. Meacham	Locks Dayton to Toledo	482 04
12	H. W. Meacham	Dynamiting cases	4,681 67
1906.	11. 11. 11.		2,002 01
Jan. 9	Chas. Cooper	M. and E. Canal	824 00 4
9	John O'Connor	M. and E. Canal	824 00
9	H. W. Meacham	M. and ECanal	824 001
9	Chas. Cooper	Locks Cincinnati to Dayton	310 88
9	John O'Connor	Mad River Aqueduct	249 62'
9	John O'Connor	Repairing banks Lewistown Res	1,007 61
Feb. 13	Chas. Cooper	M. and E. Canal	3,900 00
13	John O'Connor	M. and E. Canal	$2,200\ 00$
13	H. W. Meacham	M. and E. Canal	$3,200\ 00$
13	Chas. Cooper	Locks Cincinnati to Dayton	323 5 1
18	John O'Connor	Repairing banks Lewistown Res	179 18
Mch. 13	Chas. Cooper	M. and E. Canal	$1,000\ 00$
13	John O'Connor	M. and E. Canal	937 96
13	H. W. Meacham	M. and E. Canal	1,000 00
Apr. 10	Chas. Cooper	M. and E. Canal	1,085 86
10	John O'Connor	M. and E. Canal	918 86
10	H. W. Meacham	M. and E. Canal	1,319 23
10	Chas. Cooper	M. and E. Canal	1,000 00
10	John O'Connor H. W. Meacham	M. and E. Canal	1,000 00
10		Rpairing banks Lewistown Res.	403 81
10 10	John O'Connor	Aqueduct Mad River	10 48
10	John O'Connor H. W. Meacham	Repairing banks St. Marys Res.	44 14
10	Huston & Cleveland		4,750 00
10	Pinkerton Nat. D. Agt.		318 33
May 8	Chas. Cooper		1.423 69
May 8	Chas. Cooper		750 00
<u>8</u>	John O'Connor		1,399 34
8	H. W. Meacham		2,108 92
š	W. C. Wykoff		41 00
8	E. E. Booton	((41 00•
2	B OF P. W.		

ON ACCOUNT OF THE MIAMI AND ERIE CANAL - Concluded.

Date.	To Whom Issued.	Name of Appropriation.	Amount.
1900.			
8	C. W. Diehl	M. and E. Canal	. 37 80
8 June 12	John O'Connor	Repairing banks Lewistown Res M. and E. Canal	879 75 7,000 00
12	Chas. Cooper	M. and E. Canal	1,650 00
12	John O'Connor	M. and E. Canal	3,500 00
12	John O'Connor	M. and E. Canal	650 00
12 12	H. W. Meacham H. W. Meacham		2,211 88
12	H. W. Meacham	M. and E. Canal	1,288 12 650 00
12	W. C. Wikoff		125 00
12	E. E. Booton	M. and E. Canal	125 00
12	C. W. Diehl	M. and E. Canal	115 00
12 12	F. W. Schaub	M. and E. Canal	15 00
12		Repairing banks Lewistown Res.	9 40 13 22
$\overline{12}$	John O'Cornor	Aqueduct Miami River	127 25
12	John O'Cornor Huston & Cleveland	Aqueduct Miami River	2,500 00
July 10	Chas. Cooper	M. and E. Canal	600 00
10 10	John O'Connor		$\frac{600}{372} \frac{00}{75}$
10	H. W. Meacham		600 00
Aug. 14	Chas. Cooper	M. and E. Canal	200 00
14	John O'Connor	M. and E. Canal	250 00
14	H. W. Meacham	M. and E. Canal	200 00
14 Sept. 14	Huston & Cleveland	Aqueduct Miami River	1,500 00 400 00
14	John O'Connor	M. and E. Canal	200 00
14	Chas. Cooper	M. and E. Canal	600 00
14	H. W. Meacham	M. and E. Canal	600 00
Oct. 8	Chas. Cooper		600 00 600 00
8 8	John O'Connor H. W. Meacham		600 00
Nov. 13	Chas. Cooper	M. and E. Canal	4,000 00
13	John O'Connor	M. and E. Canal	4,000 00
13	H. W. Meacham	M. and E. Canal:	4,000 00
	•	Total	\$90,389 96
•	REG	CAPITULATION.	
Chas Co	orer Sunt		\$28,844 42
John O'C	Connor Supt		25,358 01
H W M	eacham. Supt		26,610 00
Huston 8	Cleveland		8,750 00
Pinkerton	Nat'l Detective Agend	zy	318 33
Wheeler	C Wikoff		166 00
T T D	oton		175 40
C W D	iahl		152 80
TEW So	10111		15 00
عاد ۱۷۷ . د	iigut		
т	otal		\$9 0,389 96

ON ACCOUNT OF RECONSTRUCTION MIAMI AND ERIE CANAL BETWEEN DAYTON AND CINCINNATI AS PROVIDED FOR BY THE 77TH GENERAL ASSEMBLY.

Date.	To Whom Issued.	To Whom Issued. Name of Appropriation.		
1906. May 8 June 12 July 10 Aug. 14 Sept. 14 Oct. 9 Nov. 13	James C. Wonders Capitol Construction	Reconstruction M. & E. Dayton to Cincinnati	\$584 64 1,272 93 1,433 21 1,595 13 5,920 60 10,440 18 9,597 60 4,000 00 \$34,844 29	

RECAPITULATION.

James C. Wonders, reconstruction M. & E., Dayton to Cinti	
Total	\$34,844 29

ON ACCOUNT OF REBUILDING MIAMI AND ERIE CANAL NORTH OF DAYTON, AS PROVIDED FOR BY THE 77TH GEN-ERAL ASSEMBLY.

Date.	To Whom Issued.	Name of Appropriation.	Amount.
1906. June 12	James C. Wonders		4440 ==
July 10	James C. Wonders	Dayton Rebuilding M. & E. North of Dayton	\$119 75 89 65
Aug. 14		Rebuilding M. & E. North of Dayton	127 87
Sept. 14		Rebuilding M. & E. North of Dayton	- 382 04
Oct. 9	James C. Wonders	Dayton	4,976 93
Nov. 13	James C. Wonders	Rebuilding M. & E. North of Davton	5,406 37
		Total	\$11,102 61

RECAPITULATION.

James C. Wonders, rebuilding M. & E. Canal north of Dayton...... \$11,102 61

ON ACCOUNT OF THE NORTHERN DIVISION OF THE OHIO CANAL.

Date	e.	To Whom Issued.	Name	e of App	ropriat	ion.	Amo	unt.	
190	5.				•				
Dec.	12	Chas. Hatch	Northern	Division	Ohio	Canal	\$2,0	017	68
	12	Chas. H. Geidel	Northern	Division	Ohio	Canal	1,4	481	07
190									
Jan.	9	Chas. Hatch				Canal		672	
	9	Chas. H. Geidel			Ohio	Canal		666	
Feb.	13	Chas. Hatch			Ohio	Canal		345	
	13 -				Ohio	Canal		888	
Mar.	13	Chas. Hatch			Ohio	Canal		126	
	13	Chas. H. Geidel			Ohio	Canal		804	
Apr.	10	Chas. Hatch				Canal		028	
	10	Chas. H. Geidel			Ohio	Canal		791	
May	8	Chas. Hatch				Canal		975	
	8	Chas. H. Geidel			Ohio			555	
June	12	Chas. Hatch			Ohio	Canal		655	
	12	Chas. H. Geidel				Canal		797	
July	10	Chas. Hatch			Ohio			74 6	
	10	Chas. H. Geidel				Canal		521	
	10	W. C. Wikoff				Canal		125	
	10	E. E. Booton	Northern	Division		Canal		125	
	10	Chas. W. Diehl	Northern	Division	Ohio	Canal	•	115	00

\$40,489 22

C :: Account of the Northern Division of the Ohio Canal — Concluded.

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Date.	To Whom Issued.	Name	of App	ropria	tion.	Amoun	t.
		-	1		-	-	
1906.	~			-			
1.500.	F. W. Schaub	Northern	Division	Ohio	Canal	10	00
10	W. C. Wikoff		Division	Ohio	Canal		10
10	Cols. Citizens Tel. Co.						00
Aug. 14	Chas. Hatch					2,121	75
14	Chas. H. Geidel	Northern				1,645	00
14	Chas. H. Geidel	Northern -				1,236	
14	W. C. Wikoff	Northern				153	70
14	E. E. Booton					153	70
14	Chas. W. Diehl					.141	
14	Franklin Toilet Co	Northern					00
14	E. H. Sell & Co				Canal	4	
14	F. W. Schaub	Northern	Division	Ohio	Canal	10	00
14	W. C. Wikoff	Northern	Division	Ohio	Canal		35
14 14	C. L. Hughes						50
14 14	E. E. Booton					32 4	80
Sept. 14	Chas. Hatch					1,723	11
3ept. 14	Chas. H. Geidel	Northern				1,120 $1,240$	01
14	E, E. Booton					125	
14	C. W. Diehl					125	
14	A. H. Sawyer		Division	Ohio	Canal	125	-00
14	E. E. Booton	Northern	Division	Ohio	Canal	13	97
14	F. W. Schaub	Northern				10	00
Oct. 9	Chas. Hatch	Northern				1,796	47
9	Chas. H. Geidel	Northern	Division	Ohio	Canal	1,337	88
Nov. 13	Chas. Hatch	Northern 1	Division	Ohio	Canal	1,783	61
13	Chas. H. Geidel	Northern 1	Qivision	Ohio.	Canal	1,207	36
		Total				\$40,489	$\frac{-}{22}$
					1		

Chas. Hatch, Supt	\$22,994	, 32
Chas. H. Geidel, Supt	16,173	32
Wheeler C. Wikoff	301	15
E. E. Booton	450	47
C. W. Diehl	381	47
F. W. Schaub	30	00
C. L. Hughes	11	5 0
Franklin Toilet Supply Company	3	00
Central Union Telephone Co	4	50
A. H. Sawyer	125	00
E. H. Sell & Co	4	50
Columbus Citizens Telephone Co	10	00
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ON ACCOUNT OF THE SOUTHERN DIVISION OF THE OHIO CANAL.

Date.	To Whom Issued.	Name of Appropriation.	Amount.
1905. Dec. 12 1906. Jan. 9 Feb. 13 Mar. 13 Apr. 10 May 8 June 12 July 10 Aug. 14 Sept. 14 Oct. 9 9 Nov. 18 13 13 13 13 13 13 13 13	H. R. Morris. E. E. Booton. F. W. Schaub. A. H. Sawyer. C. W. Diehl. E. E. Booton. H. R. Mooris. E. E. Booton. Chas W. Diehl. Franklin Toilet Co. Crystal Ice Co. E. E. Booton. F. W. Schaub.	Southern Division Ohio Canal Southern Division Ohio Canal	\$707 76 878 71 1,152 49 896 73 21 29 831 23 883 01 2,636 08 4,047 23 3,799 72 2,550 75 2,187 40 1,072 51 15 60 10 00 125
		Total	\$23,335 22

RECAPITULATION.

H. R. Morris, Southern Division Ohio Canal	\$22,650	02
E. E. Booton, Southern Division Ohio Canal	277	20
C. W. Diehl, Southern Division Ohio Canal	250	00
A. H. Sawyer, Southern Division Ohio Canal	125	00
F. W. Schaub, Southern Division Ohio Canal	20	00
Franklin Toilet Sup. Co., Southern Division Ohio Canal	3	00
The Crystal Ice Co., Southern Division Ohio Canal	10	00
-		
Total	\$ 27,335	22

ON ACCOUNT OF RECONSTRUCTION NORTHERN DIVISION OHIO AND ERIE CANAL BETWEEN CLEVELAND AND DRESDEN, AS PROVIDED BY THE 77TH GENERAL ASSEMBLY.

Date.	To Whom Issued.	Name of Appropriation.	Amount.
1906. June 12 July 10 Aug. 14 Sept. 14 Oct. 9 Nov. 13	John A. Hanlon John A. Hanlon John A. Hanlon John A. Hanlon	Reconstruction Ohio Canal Total	\$5,143 57 4,233 81 3,822 89 3,427 19 14,421 29 16,731 30 \$47.780 05

RECAPITULATION.

John A. Hanlon, reconstruction Ohio Canal north of Dresden..... \$47,780 05

ON ACCOUNT OF IMPROVEMENTS OF NORTHERN DIVISION OF THE OHIO CANAL IN ACCORDANCE WITH SENATE BILL NO. 258.

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Dat	e.	To Whom Issued.	Name	of A	pprop	riatio	n.	Amount.	
190	05.								_
Dec.	12 12	Atlantic Foundry Co Cleveland B. Sup. Co.	Improvem't Improvem't	Nor. Nor.	Div. Div.	Ohio Ohio	Canal.	\$307 961	
	12 12	G. W. Carmichael &	Improvem't	Nor.	Div.	Ohio	Canal.	1,117	78
	:	G. W. Carmichael &	Improvem't	Nor.	Div.	Ohio	Canal.	1,462	
	$\begin{array}{c} 12 \\ 12 \end{array}$	McGarry & McGowan.	Improvem't Improvem't	Nor.	Div. Div	Ohio	Canal.	1,379 4,653	
	$\cdot 12$	P. T. McCourt	Improvem't	Nor.	Div.	Ohio	Canal.	3,314	
190	12)6	Chas. Hatch	Improvem't	Nor.	Div.	Ohio	Canal.	3,629	67
Jan.	9	Atlantic Foundry Co. Geo. W. Carmichael &						234	26
	9	Co	Improvem't	Nor.	Div.	Ohio	Canal.	1,604	
	9	McGarry & McGowan. P. T. McCourt	Improvem't Improvem't	Nor.	Div.	Ohio	Canal.	3,683 471	
	9 9	McCourt & Ely Geo. W. Carmichael	Improvem't					1,359	
		& Co	[mproveni't	Nor.	Div.	Ohio	Canal.	408	
	.9 . 9	Alexander Adamson Chas. Hatch		Nor.	Div.	Ohio	Canal.	160	
Feb.	13	Chas Hatch	Improvem't	Nor.	Div.	Ohio	Canal.	2,810 4,330	01
Mar.	13	Chas. Hatch	Improvem't	Nor.	Div.	Ohio	Canal.	1,350	
	13	Michally & Michally	movem t	INOT.	Div.	Unio	Canai.	3.000	
	13	P. I. McCourt	Improvem t	Nor.	Div.	Ohio	Canal.	1.266	25
	13 13	McCourt & Ely Geo. W. Carmichael &	improvem t	Nor.	Div.	Ohio	Canal.	2,205	32
	13 13	Co	Imorovem't Improvem't	Nor. Ncr.	Div.	Ohio Ohio	Canal. Canal.	. 139 . 109	
	13	Geo. W. Carmichael &		Nor	Div	Ohio	Canal	1,674	16
	13	Co	Improvem't	Nor.	Div.	Ohio	Canal.	499	
	13	The King Bridge Co	Improvem't	Nor.	Div.	Ohio	Canal.	2,500	
	13	Clifton Bros	Improvem't	Nor.	Div.	Ohio	Canal.	960	
Apr.	10 10	The King Bridge Co	Improvem't	Nor.	Div.	Ohio	Canal.	1,500	
	10	D. E. Sullivan & Son. Chas. Hatch	Improvem't	Nor.	Div.	Ohio	Canal.	621 99	
	10	Chas. Hatch	Improvem't	Nor.	Div.	Ohio	Canal.	963	
May	8	Chas. Hatch	Improvem't	Nor.	Div.	Ohio	Canal.	2,070	51
	8	Alexander Adamson	Improvem't	Nor.	Div.	Ohio	Canal.	123	30
	. 8	Atlantic Foundry Co	Improvem't	Nor.	Div.	Ohio	Canal.	$\begin{vmatrix} 127 \\ 1,136 \end{vmatrix}$	
	8	The King Bridge Co McGarry & McGowan.	Improvem't	Nor.	Div.	Ohio	Canal.	3,001	40
	8	A. A. Likens	Improvem't	Nor.	Dıv.	Ohio	Canal.	861	98
	8	Clifton Bros	Improvem't	Nor.	Div.	Ohio	Canal.	453	
	8	D. E. Sullivan & Son.	Improvem't	Nor.	Div.	Ohio	Canal.	$1,302 \\ 2,729$	35 63
	8	P. T. McCourt	Improvem't	Nor.	Div.	Ohio	Canal.	980	00
June	12	Chas. Hatch	Imcrovem't	Nor.	Div.	Ohio	Canal.	2.780	97
	12	The King Bridge Co!	Improvem't	Nor.	Div.	Ohio	Canal.	500	00
	$\frac{12}{12}$	P. T. McCourt	Improvem't	Nor.	Div.	Ohio	Canal.	2,129 1,892	
	12	McGarry & McGowan.	Improvem t	Nor.	Div.	Ohio	Canal	2,539	
	12	A. A. Likens	Improvem't	Nor.	Div.	Ohio	Canal.	1.602	45
	12	D. E. Sullivan & Son	Improvem't	Nor.	Div.	Ohio	Canal.	2,457	
July	10	Chas. Hatch	Improvem't	Nor.	Div.	Ohio	Canal.	2,605	04

On Account of Improvements of Northern Division of the Ohio Canal — Concluded.

Date.	To Whom Issued.	Name of Appropriation.	Amount.
1906. 10 10 10 Aug. 14 14 14 Sept. 14 14 14 14 10ct. 9 9 9 9 Nov. 13 13 13 13 13 13 13	D. E. Sullivan & Son. A. A. Likens. Alexander Adamson Chas. Hatch A. A. Likens. D. E. Sullivan Chas. Hatch P. T. McCourt McGarry & McGowan. D. E. Sullivan & Son. A. A. Likens Cleveland B. Sup. Co. Chas. Hatch D. E. Sullivan & Son. A. A. Likens M. J. Walsh D. E. Sullivan & Son. Chas. Hatch D. E. Sullivan & Son. P. T. McCourt McGarry & McGowan. Cleveland B. Sup. Co. A. A. Likens D. E. Sullivan & Son. Co. A. A. Likens D. E. Sullivan & Son. Co. A. A. Likens D. E. Sullivan & Son. Co. A. A. Likens D. E. Sullivan & Son. Co. A. A. Likens D. E. Sullivan & Son. Co. A. A. Likens	Improvem't Nor. Div. Ohio Canal.	2,228 47 2,500 00 1,000 00 500 00 764 95 500 00 1,877 94 500 00 1,259 88 190 50 500 00 2,268 04 1,314 62 800 00 1,000 00 500 00 135 64 741 72 181 26
		Total	\$106,592 78

RECAPITULATION.

Chas. Hatch, Supt	\$29,810	83
The Cleveland Builders Supply Co	1,596	64
G. W. Carmichael & Co	8,299	65
McGarry & McGowan	15,104	41
McCourt & Ely	9,197	60
P. T. McCourt	13,410	42
The Atlantic Foundry Company	778	69
Alexander Adamson	857	80
The King Bridge Company	5,636	83
Clifton Bros.	1,413	00
D. E. Sullivan & Son	11,801	18
A. A. Likens	8,495	23
M. J. Walsh	190	50
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CHECKS ISSUED BY THE PRESIDENT OF THE BOARD OF PUBLIC WORKS ON FUNDS APPROPRIATED ANNUALLY FOR THE PAYMENT O FOFFICERS' SALARIES, CONTINGENT EXPENSES, ETC.

Date.	To Whom Issued.	Name of Appropriation.	Amount.
1005			
1905. Dec. 12	Wm Kirtley Ir	Member's salaries	\$66 66
Dec. 12		Member's salaries	66 66
	R. B. Crawford	Member's salaries	66 66
	Wm. Kirtley, Jr	Member's salaries as Supts Member's salaries as Supts	125 00
	Geo. H. Watkins	Member's salaries as Supts	125 00
	Wm. Kirtley, Jr	Member's salaries as Supts Member's traveling expenses	125 00 50 00
	Geo. H. Watkins	Member's traveling expenses:	50 00
	R. B. Crawford	Member's traveling expenses	50 00
	Chas. E. Perkins	Member's traveling expenses Engineer's salaries	250 00
	Samuel Bachtell	Engineer's salaries	133 33
	W. H. McClintock	Secretary's salary	125 00 58 33
1906.	R. Sullivant	Clerk's salary	36 33
Jan. 9	Wm. Kirtley, Jr	Member's salaries	66 66
J	Geo. H. Watkins	Member's salaries	66 66
	R. B. Crawford	Member's salaries	66 66
	Wm. Kirtley, Jr	Member's salaries as Supts	125 00
	Geo. H. Watkins		125 00 125 00
	Wm Kirtley Ir	Member's salaries as Supts Member's traveling expenses	50 00
	Geo. H. Watkins	Member's traveling expenses	50 00
	R. B. Crawford	Member's traveling expenses	50 00
	Chas. E. Perkins	Engineer's salaries	250 00
	Samuel Bachtell	Engineer's salaries	133 33 125 00
	R Sullivent	Secretary's salary	58 33
Feb. 13		Member's salaries	66 74
	Geo. H. Watkins	Member's salaries	66 74
		Member's salaries	66 74
	Wm. Kirtley, Jr	Member's salaries as Supts	125 00
	P R Crawford	Member's salaries as Supts Member's salaries as Supts	125 00 125 00
		Member's traveling expenses	50 00
	Geo. H. Watkins	Member's traveling expenses	50 00
	R. B. Crawford	Member's traveling expenses	50 00
	Chas. E. Perkins	Engineer's salaries	250 00
	Samuel Bachtell	Engineer's salaries	133 37 125 00
		Secretary's salary	58 37
Mar. 13		Member's salaries	66 66
		Member's salaries	66 66
		Member's salaries	66 66
		Member's traveling expenses	50 00 50 00
	R. B. Crawford	Member's traveling expenses Member's traveling expenses	50 00
	Chas F Perkins	Engineer's salaries	250 00
	Samuel Bachtell	Engineer's salaries	133 33
	W. H. McClintock	Secretary's salary	125 00
	R. Sullivant	Clerk's salary	58 33
•	F. W. Schaub	Contingent expenses (salary)	30 00 10 00
	Reminaton T Co	Contingent expenses (stamps)	75
Apr. 10	Geo. H. Watkins	Contingent expenses (stamps) Contingent expenses Member's salaries	66 66
	R. B. Crawford	Member s salaries	66 66

CHECKS ISSUED BY THE PRESIDENT OF THE BOARD OF PUBLIC WORKS - Continued.

Date.	To Whom Issued.	Name of Appropriation.	Amount.
1906.			
		Member's salaries	66 66
	Geo. H. Watkins		50 00 [,]
	R. B. Crawford		50 00
	Chas. E. Perkins	Engineer's salaries	250 00
	Samuel Bachtell	Engineer's salaries	133 33 62 50•
1	W. H. McClintock	Secretary's salary	62 50·
	R. Sullivant	Clerk's salary	58 33
		Contingent expenses (salary)	30 00
		Contingent expenses	8 00· 2 00·
May 8	Geo. H. Watkins		66 66
•	R. B. Crawford	Member's salaries	66 66
	Geo. H. Watkins	Member's salaries	66 66 375 00
		Member's salaries as Supts	
	Wm. Kirtley, Jr		375 00
	Geo. H. Watkins R. B. Crawford		50 00 50 00
	Wm. Kirtley, Jr		50 00
	Chas. E. Perkins	Engineer's salaries	250 00
	Samuel Bachtell	Engineer's salaries	133 33 125 00 [,]
	W. E. Thompson R. Sullivant		58 33
	W. U. Tel Co	Contingent expenses	22 49
	Cent. Union Tel	Contingent expenses	45 80· 51
	Rem. Typewriter Co	Contingent expenses	75.
	W. H. Anderson Co.	Contingent expenses	12 00
	The C. P. & E. Co	Contingent expenses	1 45. 15 43
	Weiman Mach. Works,	Contingent expenses	1 75.
	Col. Citizens Tel. Co	Contingent expenses	10 00
	Rucher Eng. Co	Conitngent expenses	2 02 [.] 80
	The Terry Eng. Co	Contingent expenses	2 00
	U. S. Telephone Co	Contingent expenses	11 80
	Fred J. Heer	Contingent expenses	16 00· 10 00·
	D. C. Day	Contingent expenses	17 00
	U. S. Express Co	Contingent expenses	2 55-
	Wells Fargo Exp. Co Adams Express Co	Contingent expenses	1 45. 90
		Contingent expenses (salary)	30 00
	F. W. Schaub	Contingent expenses (stamps)	10 00
	U. S. Telephone Co	Contingent expenses	2 30 [,] 16 42
June 12	E. E. Booton		66 66
, 10	R. B. Crawford	Member's salaries	66 66
	Wm. Kirtley, Jr		66 66. 125 00
	Geo. H. Watkins R. B. Crawford	Member's salaries as Supts	125 00
	Wm. Kirtley, Jr	Member's salaries as Supts	125 00
	Geo. H. Watkins	Member's traveling expenses	50 00·
	R. B. Crawford	Member's traveling expenses	50 00 50 00°
	C T T T	Engineer's salaries	250 00

CHECKS ISSUED BY THE PRESIDENT OF THE BOARD OF PUBLIC WORKS - Continued.

Date.	To Whom Issued.	Name of Appropriation.	Amount.
1906,			•
1000.	Samuel Bachtell	Engineer's salaries	133 33
	W. E. Thompson	Secretary's salary	. 125 00
	R. Sullivant	Clerk's salary	58 33
1	F. W. Schaub	Contingent expenses (salary)	30 00
	Am Tel Co	Contingent expenses	27 62 75
•	American Express Co.	Contingent expenses	35
	J. B. Schroeder & Co	Contingent expenses (key)	
	F. W. Schaub	Contingent expenses (stamps)	10 00
	Col. Citizens' Tel Co		5 05 4 50
July 10	Geo. H. Watkins	Contingent expenses	66 66
•	R. B. Crawford	Member's salaries	66 66
	Wm. Kirtley, Jr	Member's salaries	66 66
	Geo. H. Watkins	Member's salaries as Supts	125 00 125 00
	R. B. Crawford	Member's salaries as Supts Member's salaries as Supts	125 00
	Geo. H. Watkins	Member's traveling expenses	50 00
	R. B. Crawford	Member's traveling expenses	50 00
	Wm. Kirtley, Jr	Member's traveling expenses	50 00
		Engineer's salaries	250 00 133 33
		Secretary's salary	125 00
	R. Sullivant	Clerk's salary	
	F. W. Schaub	Contingent expenses (salary)	3 0 00
•	Margaret Martin	Contingent expenses	2 55
	W II Tel Co	Contingent expenses	12 00 20
	Cent. Union Tel Co	Contingent expenses	7 50
	Cent. Union Tel Co	Contingent expenses	1 90
	F. W. Schaub	Contingent expenses	20 00
		Contingent expenses	$\begin{array}{c} 50 \\ 2 \ 47 \end{array}$
	Herman Borchers	Contingent expenses	20 00
	Cols. Citizens Tel. Co.	Contingent expenses	
	U. S. Tel. Co	Contingent expenses	5 55
•	Postha A Wayner	Contingent expenses (stamps)	$\begin{array}{ccc} 5 & 00 \\ 2 & 50 \end{array}$
Aug. 14	Geo H Watkins	Contingent expenses	66 66
6	R. B. Crawford	Member's salaries	66 66
	Wm. Kirtley, Jr	Member's salaries	66 66
		Member's salaries as Supts	
		Member's salaries as Supts Member's salaries as Supts	125 00 125 00
	Geo. H. Watkins	Member's traveling expenses	50 00
	R. B. Crawford	Member's traveling expenses	50 00
	Wm. Kirtley, Ir	Member's traveling expenses	50 00
	Chas. E. Perkins	Engineer's salaries	250 00 133 33
	W. E. Thompson.	Engineer's salaries Secretary's salary	125 00
	Flora M. Sparrow	Clerk's salary	5 8 3 3
	F. W. Schaub	Contingent expenses (salary)	30 00
		Contingent expenses	3 80
	W. U. Tel. Co	Contingent expenses	18 23 4 10
	Cherrington P. & E.	**	4 10
	Co	Contingent expenses	1 20
	American Express Co.	Contingent expenses	. 35

BOARD OF PUBLIC WORKS.

CHECKS ISSUED BY THE PRESIDENT OF THE BOARD OF PUBLIC WORKS - Continued.

	1		
Date.	To Whom Issued.	Name of Appropriation.	Amount.
1906.			
1000.	Adams Express Co	Contingent expenses	30
	Samuel Bachtell	Contingent expenses	60
	Rem. Typewriter Co	Contingent expenses	40
	Chas. W. Diehl	Contingent expenses (stamps)	10 00
C 14	Chas. W. Diehl	Contingent expenses (stamps)	5 00
Sept. 14	Geo. H. Watkins R. B. Crawford	Member's salaries	66 66 66 66
	Wm. Kirtley, Jr	Member's salaries	66 66
	Geo. H. Watkins		125 00
	R. B. Crawford		125 00
	Wm. Kirtley, Jr	Member's salaries as Supts	125 00
	Geo. H. Watkins	Member's traveling expenses	50 00
	R. B. Crawford		50 00
	Wm. Kirtley, Jr	Member's traveling expenses	50 00 250 00
	Chas. E. Perkins	Engineer's salaries	133 33
	W F. Thompson	Secretary's salary	125 00
		Clerk's salary	58 33
	F. W. Schaub	Contingent expenses (salary)	30 00
	Geo. C. Mustain	Contingent expenses	5 00
	F. W. Schaub	Contingent expenses (stamps)	10 00
	W. U. Tel. Co	Contingent expenses	1 08
		Contingent expenses	4 05 1 30
		Contingent expenses	. 6 80
		Contingent expenses	30
	W. U. Tel. Co	Contingent expenses	7 27
	U. S. Tel. Co	Contingent expenses	1 30
•	F. W. Schaub	Contingent expenses	6 50
•	Chas. W. Diehl	Contingent expenses	17 50
	Samuel Bachtell		1 25 1 20
Oct. 9	Cent. Union Tel. Co Geo. H. Watkins	Contingent expenses	66 66
OCI. 0	R. B. Crawford	Member's salaries	66 66
	Wm. Kirtley, Jr		66 66
	Geo. H. Watkins	Member's salaries as Supts	125 00
	R. B. Crawford		125 00
	Wm. Kirtley, Jr	Member's salaries as Supts Member's traveling expenses	$125 00 \\ 50 00$
	R. B. Crawford	Member's traveling expenses	
	Wm. Kirtley, Ir	Member's traveling expenses	
		Engineer's salaries	250 00
•		Engineer's salaries	133 33
	W. E. Thompson	Secretary's salary	125 00
	Flora M. Sparrow	Clerk's salary	58 33
	F. W. Schaub	Contingent expenses (salary)	30 00 10 00
		Contingent expenses (stamps) Contingent expenses	75
		Contingent 'expenses	75
		Contingent expenses	7.70
		Contingent expenses	16 50
		Contingent expenses	13 30
		Contingent expenses	90
		Contingent expenses	$\begin{array}{ccc} 10 & 00 \\ 2 & 00 \end{array}$
		Contingent expenses	10 00
Nov. 13		Member's salaries	66 66
		Member's salaries	66 66

CHECKS ISSUED BY THE PRESIDENT OF THE BOARD OF PUBLIC WORKS - Concluded.

Date.	To Whom Issued.	Name of Appropriation.	Amount.
1906.	Wm. Kirtley, Jr	Member's salaries as Supts	1 05 4 40

RECAPITULATION.

Geo. H. Watkins, salary and traveling expenses	\$2,900	00
Wm. Kirtley, Jr., salary and traveling expenses	2,900	00
Richard B. Crawford, salary and traveling salesman	2,658	34
Chas. E. Perkins salary as Engineer	3,000	00
Samuel Bachtell, salary as Asst. Engineer and expenses	1,604	32
W. H. McClintock, salary as Secretary	562	5 0
W. E. Thompson, salary as Secretary	937	5 0
R. Sullivant, salary as Clerk	466	68
Flora M. Sparrow, salary as Clerk	233	32
F. W. Schaub, salary as Messenger, contingent	390	50
E. E. Booton, expenses, contingent	16	42
Margaret Martin, contingent, service	2	55
Central Union Telephone Co., contingent, service	44	65
Herman Borchers, contingent, service	20	00
Columbus Ice Co., contingent, supplies (ice)	10	60
Postal Telegraph-Cable Co., contingent, service	:	35
Columbus Hardware Company, contingent, supplies	1	30
J. L. Trauger & Co., contingent, service	1	75
Weiman Machine Works, contingent, service	1	75
Terry Engraving Co., contingent, service	;	80
Bucher Engraving Co., contingent, service	2	02
Union National Bank, contingent, service	10	00
D. C. Day, contingent, service	17	00

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BOARD OF PUBLIC WORKS.	٠	31
American Express Co., contingent service		95
Adams Express Co., contingent, service	. 3	95
Bertha Young, contingent, service	7	υ0
Wells Fargo Express Co., contingent, service	1	45
United States Express Co., contingent, service	3	40
J. S. Schroder & Co., contingent, service		25
Chas. W. Diehl, contingent, supplies and expenses	60	
The Crystal Ice Co., contingent, supplies	27	00
A. H. Smythe, contingent, supplies	2 35	
Columbus Citizens Telephone Co., contingent, service	12	_
Cherrington Printing & Engraving Co., contingent, supplies		65
American Telephone Co	-	75
Post Office box rent, contingent	2	00
United States Telephone Co., contingent, service	75	25
Fred J. Heer, contingent, supplies	16	00
Remington Typewriter Co., contingent, supplies		65
Western Union Telegraph Co., contingent, service	94	
Smith & Isennagle, contingent, supplies	6	80
Total	\$16,135	46
The foregoing checks are charged to the following accour	nts:	
Miami & Erie Canal	\$90,389	96
Miami & Erie Canal, reconstruction Cincinnati to Dayton	34,844	
Miami & Erie Canal, rebuilding north of Dayton	11,102	
Ohio Canal, Northern Division	40,489	
Ohio Canal, Southern Division	23,335	22
Ohio Canal, improvement Northern Division	106,592	78
Ohio Canal, reconstruction Cleveland to Dresden	47,780	
Members' salaries	2,333	
Members' salaries as Superintendents	4,375	
Members' traveling expenses	1,750 $4,600$	
Secretary's' salary	1,500	
Clerk's salary	700	
Contingent expenses	877	
Total		
Balance on hand November 15, 1906	219,061	96
Grand total	\$589,731	55
The balance in the different funds on November 15th, 1	906, is	as
follows:		
Miami & Erie Canal	\$ 261	86
Ohio Canal, Northern Division.	19,579	
Ohio Canal, Southern Division.	7,931	
Members' salaries	666	
Members' salaries as Superintendents	1,250	
Members' traveling expenses	*	00
Engineer's salaries	1,150	03

ANNUAL REPORT

Secretary's salary	375	00
Clerk's salary	175	03
Contingent expenses	322	96
Ohio Canal, improvement Northern Division	19,555	16
Ohio Canal, reconstruction Cleveland to Dresden	5 2,219	95
Miami & Erie Canal, reconstruction Cinti. to Dayton	65,155	71
Miami & Erie Canal, rebuilding north of Dayton	38,897	39
Repairing aqueduct over Miami River	750	00
Repairing damage by floods, M. & E. Canal	10,270	33
Total	\$219,061	96

TABLE SHOWING THE EXPENDITURES EACH YEAR FOR SUPERINTENDENCE, REPAIRS AND COST OF COLLECTION ON THE OHIO CANALS, FROM 1827 TO 1906, INCLUSIVE.

Year. Image: Control of the control of th						
1828	Year.	Ohio Canal.	Miami and Erie Canal.	Hocking Canal.	Walhonding Canal.	118
	1828 1829 1830 1831 1831 1833 1834 1835 1836 1837 1838 1839 1840 1841 1842 1843 1844 1845 1846 1847 1848 1850 1851 1852 1853 1854 1855 1856 1857 1858 1859 1860 1861 1862 1863 1864 1865 1866 1867 1868 1870 1871 1872 1873 1874 1875 1876	900 00 1,100 00 1,300 00 2,100 00 3,600 00 33,740 00 79,713 68 81,711 15 91,402 26 123,463 22 202,248 30 204,709 65 122,249 65 133,454 53 139,165 87 126,046 24 122,052 21 126,274 23 78,433 09 120,728 24 137,803 21 126,274 23 78,433 09 120,728 24 137,803 21 121,367 52 142,281 71 117,847 89 106,145 05 112,367 52 142,281 71 117,847 89 106,145 05 120,299 54 125,545 15 155,497 30 96,407 58 180,858 97 36,534 70 5,036 69 2,915 37 2,419 02 2,394 24 3,733 34 6,699 66 9,533 33 5,300 00 3,067 38 1,948 96 4,844 04 22,948 78 1,919 03 1,961 04 2,097 16	7,138 05 7,155 06 9,937 91 7,643 83 10,165 37 19,152 57 30,993 77 49,231 91 25,053 55 53,462 55 23,560 70 36,826 05 37,081 55 53,511 52 115,668 03 107,380 25 132,050 59 259,706 84 151,346 57 179,311 73 270,471 18 269,435 44 216,371 97 236,193 62 172,047 70 157,401 30 159,813 90 148,514 64 69,697 27 1,025 74 1,050 00 11 90 5,472 66 2,144 14 2,317 29 998 18 3,879 20 13,601 79 111,583 75 7,015 68 6,914 10 11,319 35 1,001 15 14,325 87	\$5,580 04 \$5,105 56 8,067 32 17,826 17 10,712 85 12,201 14 8,376 88 14,540 85 9,088 61 10,867 31 7,741 98 41,872 86 29,399 32 26,745 93 15,389 99 12,124 17 6,336 80 375 80 375 80 694 14 378 79 968 00 78 18	\$1,238 10 3,137 61 1,483 56 5,155 59 1,875 53 2,523 57 2,066 63 4,351 60 3,064 32 2,151 53 1,796 85 1,169 61 12 14 584 651 35 2,529 65 4,313 19 2,004 56	900 00 12,629 59 8,438 05 9,255 06 13,537 91 41,383 83 89,879 05 100,863 72 122,396 03 172,695 13 237,605 55 252,200 84 147,303 20 186,917 08 162,726 57 162,872 29 160,371 88,503 40 200,690 24 241,331 40 289,555 27 393,206 40 390,388 91 329,302 61 400,443 87 422,957 29 346,884 02 348,164 21 398,378 16 327,098 01 340,295 88 274,141 12 345,810 97 114,573 33 6,437 43 4,659 51 2,430 92 7,856 90 6,256 27 9,016 95 10,531 51 9,179 20 17,637 17 13,605 89 11,859 72 29,862 88 13,238 38 2,962 13 17,323 03
			4,019 18	4,119 20	1 409 84	1,159 91

Table Showing the Expenditures Each Year for Superintendence, Repairs
... ND Cost of Collection on the Ohio Canals, from 1827 to
1906, inclusive.—Concluded.

Year.	Ohio Canal.	Miami and Erie Canal.	Hocking Canal.	Walhonding Canal.	Total on all the Canals.
1878 1879 1880 1881 1882 1883 1884 1885 1886 1887 1888 1899 1890 1891 1892 1893 1894 1895 1896 1897 1898 1899 1900 1901 1902 1903 1904 1905 1906	40, 282 39 68, 269 14 85, 434 94 \$88, 178 10 82, 102 22 92, 666 58 122, 644 86 103, 180 87 87, 046 74 103, 281 89 123, 690 87 88, 519 30 80, 512 64 89, 773 15 85, 027 86 83, 333 61 105, 490, 39 67, 072 80 77, 912 51 64, 685, 36 85, 532 60 90, 139 76 95, 974 07 78, 526 43 70, 315 96 70, 364 15 75, 975 79 66, 944 91 63, 824 44	49,717 78 82,547 69 108,972 95 \$86,279 87 101,769 14 47,363 79 89,596 78 98,449 55 88,935 64 71,431 06 98,838 94 68,353 19 79,137 41 78,685 68 97,434 09 63,092 29 118,627 81 80,583 84 100,218 95 83,642 02 94,417 65 81,791 94 74,773 49 137,715 47 105,625 45 153,750 95 95,631 75 125,917 28 90,389 96	8,597 88 9,833 13 10,830 05 \$11,430 24 8,674 36 34,770 43 17,684 63 7,458 13 10,237 76 5,529 32 7,379 67 6,219 11 4,318 79 1,938 10 5,731 51 3,215 54 4,396 65	676 09 473 85 400 00 489 56 1,511 74 10,630 72 4,578 62 2,095 18 890 15 1,028 35 860 66 1,059 99 2,843 27	99,274 14 161,123 81 205,237 94 \$185,888 21 192,945 72 174,804 80 230,415 83 210,600 29 196,850 86 184,820 89 232,004 66 163,981 75 164,913 96 171,425 28 189,054 12 150,701 43 231,357 52 147,656 64 178,131 46 148,327 38 179,950 25 171,931 70 170,747 56 216,241 90 175,941 41 224,115 10 171,607 54 192,862 19 154,212 40
Total	\$6 ,024,569 64	\$6,082,243 92	\$407,256 14	\$68,474 07	\$12,582,531 26

TABLE SHOWING THE RECEIPTS ON ALL CANALS, FROM 1827 TO 1906, INCLUSIVE.

Year.	Ohio Canal.	Miami and Erie Canal.	Hocking Canal.	Walhonding Canal.	Total on all the Canals.
1827 1828 1829 1830 1831 1832 1833 1834 1835 1836 1837 1838 1839 1840 1841 1842 1843 1844 1845 1844 1845 1846 1847 1848 1849 1850 1851 1852 1853 1854 1855 1856 1857 1858 1859 1850 1851 1852 1853 1855 1856 1857 1858 1859 1850 1851 1852 1853 1856 1857 1858 1859 1856 1857 1858 1859 1850 1851 1852 1853 1856 1857 1858 1859 1856 1857 1858 1859 1866 1867 1866 1867 1868 1868 1868	2,790 50 2,199 50 5,300 00	\$8,042 70 20,941 36 30,082 33 36,643 88 36,847 47 50,470 63 50,040 99 51,917 00 50,116 52 62,833 40 82,863 09 82,601 19 74,612 88 76,718 17 71,460 34 105,640 09 139,844 25 185,243 78 233,527 24 292,037 00 325,297 32 322,244 43 311,589 27 351,897 72 308,984 56 323,599 97 280,115 80 229,370 57 119,947 02 153,733 37 153,928 09 127,610 10 159,476 64 64,632 31 4,664 00 6,186 16 800 00	\$5,953 69 2,518 26 4,215 07 4,349 33 5,286 44 5,497 83 5,351 52 7,299 14 8,746 98 8,354 84 8,077 44 11,802 04 9,957 25 11,912 21 12,597 18 16,279 35 11,118 29 18,219 41 16,367 54 18,336 36 16,494 28 7,363 48 285 67	\$610 17 837 77 1,976 78 1,282 95 1,190 71 2,328 77 1,933 01 1,594 72 2,549 04 2,613 44 1,880 80 1,233 25 223 66 377 20 501 89 268 54 798 46 527 18 789 70 755 04	\$1,500 00 12,042 70 47,941 36 60,576 26 101,508 05 116,829 95 187,026 33 214,529 97 237,581 48 261,939 84 356,262 19 464,999 05 506,201 03 532,688 60 495,439 06 463,727 80 433,582 01 490,818 46 452,393 89 576,409 16 754,195 67 754,507 68 694,824 47 711,021 68 799,024 58 629,758 01 595,538 53 485,773 82 442,191 73 321,073 75 327,819 43 279,865 93 234,679 49 267,729 01 109,285 53 9,986 36 6,186 11 3,531 66 3,590 50 9,986 36
1871 1872 1873 1874		311 00			
1878 1879		54,138 89 112,090 32	5,513 98 8,185 69	5,516 98 275 32	119,196 84 197,160 54

TABLE SHOWING THE RECEIPTS ON ALL CANALS, FROM 1827 TO 1906, INCLUSIVE -Concluded.

Year.	Ohio Canal.	Miami and Erie Canal.	Hocking Canal.	Walhonding Canal.	Total on all the Canals.
1880	77,545 66 61,819 03 \$57,703 25 44,873 52 37,787 79 25,149 98 27,071 78 28,932 35 29,509 46 28,005 47 29,489 20 42,756 35 24,544 25 25,591 24 26,132 17 22,380 54 21,657 71 24,883 25 20,223 42 24,314 96 35,776 56 26,883 87 59,413 55 36,247 75	111,259 67 109,122 88 \$98,764 97 88,904 17 83,992 14 76,156 21 76,043 57 87,200 36 75,955 13 79,476 82 73,788 02 63,876 47 86,722 96 66,211 86 74,716 75 80,324 41 97,327 12 80,293 14 57,433 64 69,151 41 61,896 70 67,180 60 63,148 23 71,229 40 60,985 71 64,138 49 62,696 36	19,235 58 6,304 45 \$5,614 43 3,693 47 2,271 41 2,587 18 3,199 20 4,138 38 3,798 36 2,605 15 1,629 17 856 38 1,197 37 689 33 120 51	7,470 45 608 41 \$1,573 89 \$20 42 448 30 71 95 945 71 932 34 906 02 892 12 933 18 1,023 48 923 64 588 00 †6,671 73 †	215,511 36 177,854 77 \$163,656 54 138,391 58 124,499 64 106,965 32 107,260 35 121,203 43 110,168 97 110,979 56 105,839 57 108,512 57 113,834 34 96,513 09 104,225 34 104,868 66 122,918 36 106,425 34 79,814 18 90,809 12 86,779 95 87,404 02 87,463 19 107,005 96 87,869 58 125,552 04 98,944 11
Total	\$ 9,268,992 53	\$7,260,034 65	\$288,469 42	\$54,972 14	\$16,872,468 71

[†] Receipts from Walhonding canal included in Ohio canal receipts. * From lessees and receiver from 1861 to 1878, inclusive.

TABLE SHOWING GROSS RECEIPTS, TOTAL EXPENDITURES AND NET EARNINGS FROM 1827 TO 1906, INCLUSIVE.

	Year.	Gross Receipts.	Total Expendi- tures.	Net Earnings.
1827 to 1906	(inclusive)	\$16,872,468 74	\$12,582,531 26	\$4,289,937 4 8

Report of Chief Engineer

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The Public Works

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REPORT OF CHIEF ENGINEER.

Office of the Chief Engineer of Public Works, Judiciary Building, Columbus, Ohio, December, 1906.

To His Excellency, Governor Harris, And to the Honorable Board of Public Works of the State of Ohio.

Gentlemen: — As Chief Engineer of Public Works, I have the honor to submit herewith, in obedience to the requirements of the statutes and the rules and regulations governing the conduct of my office, my fifteenth annual report of the operations of the Public Works of the State for the fiscal year ending on the 15th day of November, 1906, it being the twenty-eighth annual report of this department of Public Works since the creation of the office of Chief Engineer by an Act of Legislature which was passed and took effect May 14th, 1878.

I shall forego in this report any new suggestions or extended remarks in relation to the improvement and rehabilitation of the canals of the State, contenting myself with a brief reference to the subjects treated in my two annual reports last preceding, especially that of 1903, in which I dwelt at length upon the most important issues effecting any future policy to be adopted in the management of the canals, their past history, and recommendations for their retention and improvement.

I beg to call your attention particularly to the following subjects in relation to the Ohio Canal which are treated in detail in the report of 1903 referred to, to-wit:

Historical sketch of the canal and reasons for the retention of the Public Works as navigable water ways.

Aid in providing funds and Government interests.

The leasing of the Public Works and comments.

General conditions. Section of canal necessary to economical haulage. Comparison of freight rates by canal and by rail.

Maps, cross-sections, profiles and plates attached, in report.

Miscellaneous findings having reference to recommendation made.

Muskingum River improvement as an auxiliary to a future canal system of the State.

General reference and summaries.

Feasibility of improvement and enlargement of canals as recommended.

Basis of expenditure of water supply.

Water supply requisite to meet demands.

Advisability of improvement and betterment.

General recommendations.

Estimates for improving canal by enlargement as recommended.

General reference to the report of the Government Engineers on a barge canal with estimates of cost of construction and other matters along lines of canal interest treated of at length.

It will be noted in my reports that I advocated the rehabilitation on economical lines of the Northern Division of the Ohio and the Miami and Erie Canals — in fact such an improvement and enlargement of both of these canals as would permit the navigation of boats of 115 tons net, increasing their capacity more than fifty per cent.

The adoption of this plan would, I believe, then be within the financial ability of the State, and I recommended that at a future time the canal system be further enlarged to a size capable of transporting a full sized Ohio River barge, although such a plan would involve an expenditure beyond the financial resources of the State at present.

The estimates submitted for the rehabilitation of the two canals amounted in round numbers to about one and one-half million dollars. To this sum should be added (on account of changes outlined in more recent reports) about 15% to the estimate submitted for the improvement of the Northern Division of the Ohio Canal between Cleveland and Dresden, and 20% for the improvement of the Miami and Eric Canal; the increase for the Ohio Canal being accounted for by the higher prices for labor and material now prevailing and the tardy execution of the work which could not be anticipated at the time the first estimate was made; the increased cost for the Miami and Eric Canal being explained by the necessity of entirely rebuilding the big State Dam across the Miami River at Middletown and by the decision to substitute concrete for wooden locks between New Bremen and Toledo — numbering 36 — instead of merely repairing such locks with new timber work.

The estimates given in my report of 1903 for the enlargement to a modern barge canal of the Northern Division of the Ohio Canal, 150 miles, and of the Miami and Erie Canal, 244 miles, amount in the aggregate to nearly forty-two million dollars; the estimates providing for locks, 26 feet in width and 200 feet in length with a depth over mitre sills 10 feet.

The great difference between the cost of these two plans of improvement, as may readily be conceived, induced the recommendation for the lesser one, taking into consideration thefinancial ability of the State at the time, and the general purpose to be accompished.

In the report referred to, I attempted to show, by facts and arguments in favor of the rehabilitation plan, the commercial value of the canal when completed, and that if its management were conducted along economical lines, it could be made self-sustaining for a number of years, pending a future time for the building of a modern barge canal. When

that time comes, I would advise that the canal be increased to the largest capacity compatible with the physical conditions to be contended with.

In consequence of its full presentation of facts and arguments and its recommendations for the retention and rehabilitation of the two canals, such improvement to be begun at once, my report for 1903 was accepted by the friends of the canals as a text-book or manual in presenting the plea for canal improvement to the 76th General Assembly, with the result that a policy of improvement was adopted and appropriations for reconstruction were made by Senate Bill No. 258 which was passed April 25th, 1904.

In as much as this bill is of vital importance, being actually a declaration of the General Assembly in favor of canal improvement along the economical lines recommended, affecting not only the future of the Northern Division of the Ohio Canal, but the entire canal system, I herewith submit a copy of the act in full:

AN ACT

To provide by appropriation for the improvement of the northern division of the Ohio and Erie Canal.

Be it enacted by the General Assembly of the State of Ohio:

Section 1. That as a part of a continuing appropriation hereby begun, for the improvement of the Ohio and Erie canal, there is hereby appropriated from any moneys to the credit of the general revenue fund, not otherwise appropriated for the year 1904, the sum of seventy-five thousand (\$75,000) dollars and for the year 1905, the sum of one hundred and twenty-five thousand (\$125,000) dollars, the same to be expended by the state board of public works, under the direction of the state engineer, and substantially in accordance with plans and specifications prepared by said engineer, and now on file in the office of the state board of public works, for the reconstruction of the northern division of the Ohio and Erie canal, beginning at its northern terminus at Cleveland, Ohio.

Provided, that the appropriation herein made shall not be available until new leases have been made between the state of Ohio and the present water lessees along the said northern division of the Ohio and Erie canal, aggregating in rentals at least the sum of thirty thousand (\$30,000) dollars per annum. Such new water leases shall not be for a greater term than five years, and shall become operative and payable at (the) new rates, as agreed upon in such new leases, as soon as the state of Ohio shall have begun said improvement of the Ohio and Erie canal, which will substantially involve an ependiture of five hundred and seventy-three thousand, sixty-four and thirty-three one-hundredths dollars, (\$573,064.33) in accordance with said plans and specifications prepared by the state engineer, and now on file in the office of the state board of public works. All new leases before becoming operative under the provisions of this act, shall be approved by the governor, the state board of public works and the chief engineer of the state board of public works.

George T. Thomas,

Speaker of the House of Representatives.

W. G. Harding,

President of the Senate.

Passed April 25, 1904. Approved May 6, 1904. Myron T. Herrick,

Governor.

The 77th General Assembly, continuing the policy of improvement inaugurated by its predecessor, also made appropriations during its session of 1906 as follows, to-wit:

FOR THE YEAR 1906.

For rebuilding the Miami and Erie Canal north of Dayton	\$50,000.00
For reconstructing Northern Division of Ohio Canal, Cleveland to	
Dresden	
For reconstructing the Miami and Erie Canal, Cincinnati to Dayton	100,000.00

FOR THE YEAR 1907.

For rebuilding the Miami and Erie Canal north of Dayton	\$50,000.00
For reconstructing the Miami and Erie Canal, Cincinnati to Dayton	156,000.00
For reconstructing Northern Division Ohio Canal, Cleveland to Dresden.	150,000.00

Thus a total appropriation was made, to be especially directed towards the improvement of these two canals as follows:

Ohio Canal C	Cleveland to	Dresden	. \$450,000 .00
Miami and H	Erie Canal		. 356,000.00
			<u></u>

Total appropriations for these purposes......\$806,000.00

The work contemplated by these appropriations is now in progress and is specifically outlined and treated in special reports from the Engineers in charge of respective divisions of the canal, hereto attached and made a part of this report.

In order that it may be understood what kind of improvement is contemplated by the appropriation made by the initiatory measure, Senate Bill No. 258, 'as a part of a continuing appropriation thereby begun,' and by other appropriations to follow, I beg to submit the following statement, quoting largely from my report referred to:

"The present material body of the Public Works of the State is, in the abstract, worn out, and unless the slow and certain decline into which the canals are falling, is very soon arrested by proper ways and means, they will be forced out of business as freight carriers and as a source of water supply.

The Public Works have their excellent, good and bad physical parts, the first two largely predominating in extent and volume, while the latter, as may be readily understood from an industrial standpoint, govern results and the actual efficiency of the whole.

In late years, where special appropriations have been made for the purpose, or where it has seemed important, for obvious reasons, to concentrate means for making special improvements on those parts of the canals which bring in the greatest revenues, decided betterments of a specific character have been made. However, where this policy (forced upon the officers of the Department since the time when the property

was turned back to the State in a crippled condition) has been carried out, it has necessarily worked an injury to other parts of the canal less favored. Ever since these changes in the affairs of the Public Works were brought about, (primarily by the lease in question,) there has been a gradual falling off in gross earnings, and in direct appropriations by the Legislature, the latter naturally influenced by the diminished amount of the former, the effect of which has been to further gradually cripple the physical condition of our canals and their ability to meet the demands for traffic and other purposes for which they were intended.

These and other adverse and long prevailing conditions have acted as a serious hindrance to their success otherwise, until the canals can no longer economically furnish water for manufacturing and domestic uses or dictate and enforce minimum freight charges, the latter being the particular purpose for which water ways are constructed and maintained by a government, although it remains a pertinent fact that some certain, portions of the canals are still performing this important function of their creation and at present do actually limit maximum charges in many In fact, the canals of Ohio have practically been permitted to remain dormant for nearly half a century, deprived of any improvements whatsoever in their mechanical parts and suffered to become physically disabled, until they have fallen so far below a moderate standard of efficiency that they are unable longer to keep pace with railway transportation, while on the other hand the roadbed and equipment of railways have been constantly improved by the adoption of every possible invention that unlimited means could command and which could in any manner effect a reduction in operating expenses.

These unequal conditions have given rise to an erroneous estimate of the capabilities of a canal as a freight carrying competitor and to the unjust conclusion on the part of some that our Ohio canals are obsolete and not worthy of favorable consideration."

In fact the condition of our canal had become such as to render it a menace to the safety of our people and a source of constant damage to abutting property. Owing to neglect, necessitated by the indigency of the Department, many of the walls were overhanging more than a foot; the feeder dams were leaky and some of them out of commission; many acueducts and other minor structures were in bad physical condition, until was a common saying of your employes that they could not understand what kept these structures standing unless it was "force of habit," and the falling in of the canal prism which became a hindrance to navigation.

It was such a condition of affairs that at last forced the declaration of a policy by the legislature, resulting in the appropriation noted above, contemplating a rehabilitation of the two parts of the canal mentioned, in such a manner as to permit the transportation of boats capable of carrying a net burden of 115 tons; in fact, again quoting from my report:

"The improvement of the Miami and Erie Canal and of the Northern Division of the Ohio Canal to be such as to insure their maintenance at a minimum cost. All new masonry to be of first-class character; the foundation timbers of locks and the unlaid portions of lock walls to be fully grouted and faced, where required, with Portland cement concrete; new gates and mitre sills to be supplied were required;" the thinker entering into any kind of work to be sound and durable; all new aqueduets of over 20 feet span to be of a combination of steel and wood: present timber aqueducts that will stand the test to be repaired in a good substantial manner; all dams and wasteways to be rebuilt and repaired with timber and concrete where necessary, and all work of every character and kind to be done in a good and workmanlike manner, so as to insure stability; the entire channel of the canal, where required, to be newly excavated so as to admit the free passing of boats loaded to their maximum capacity; the improvement to be confined to the present canal right of way, the ownership of which is held by the State in fee simple."

I have the honor to transmit herewith, as part of this document, the following reports made to me by Messers. Wonders, Hanlon, and Paul, Engineers who each have charge of one of the three divisions of the improvement, showing particularly the extent of the improvement as now finished and in progress of construction, contracts entered into, a statement of monies expended and all business connected therewith, and outlining plans and recommendations for continuing the improvement for next season; the said Engineers having been appointed under authority of an act of the 77th General Assembly which passed and took effect April 2, 1906.

As the act is an important measure affecting the government of the department, I take the liberty of quoting its full text as follows:

(Senate Bill No. 32.)

AN ACT

To amend section 2 of an act entitled "An act to define (defining) the powers and prescribing the duties of the board of public works," passed May 14, 1878, and to extend the existing term of a member of the board of public works, so as to effect the purpose of section 1, article XVII of the constitution; and to define the duties of the chief engineer of public works; and to confer the powers and duties of the Ohio canal commission upon the board of public works of Ohio and to limit the powers of said board of public works in leasing canal and state lands.

Be it enacted by the General Assembly of the State of Ohio:

SECTION 1. That section 2 of an act entitled "An act defining the powers and prescribing the duties of the board of public works," passed May 14, 1878, be so amended as to read as follows:

Sec. 2. The term of office of the member of the board of public works which would otherwise expire on the second Tuesday of February, one thousand, nine hundred and eight, is hereby extended to the second Tuesday of February, one

thousand, nine hundred and nine, and the incumbent in said office at the time when said existing term would otherwise expire, shall continue to hold and enjoy the same until the expiration of said term as so extended, subject to all the provisions of law relating to removals or vacancies therein.

Provided, that before entering upon his duties for such added period, to secure the faithful performance thereof, he shall give bond to the state in like manner and form as is required of one elected to fill such office.

At the election for state and county officers held in the year one thousand, nine hundred and six, and quadrennially thereafter, one member of the board of public works shall be elected, and at the said election held in the year one thousand, nine hundred and eight, and quadrennially thereafter, two members of said board shall be elected; and the terms of office of all such members of said board hereafter elected shall commence on the second Tuesday of February next after their election, and continue four years.

Each member of the board shall receive eight hundred dollars per annum salary, and not to exceed fifty dollars per month traveling expenses, during the time the state has possession of the public works, and eight hundred dollars per annum salary thereafter, but shall not receive any traveling expenses. Said salary and expenses shall be paid monthly after the services are rendered and expenses incurred, upon the order of the board, out of the canal fund on the warrant of the auditor.

Section 2. The chief engineer of the public works, in addition to the powers and duties conferred and imposed upon him by existing laws, shall prepare all plans and specifications for all contracts or other work in connection with the rebuilding, reconstruction or improvement of the public works or canals, or either of them, or any part of the same, which may have been, or may be provided for by specific appropriation. All work in connection with the rebuilding, reconstruction, or improvement of the public works shall be let by contract whenever the same is possible in the opinion of the board of public works and the chief engineer. All contracts for such rebuilding, reconstruction, or improvement shall be so made and let as to insure the fullest competitive bidding, and prevent the subletting of contracts.

During such time as the chief engineer shall be actively engaged in the rebuilding, reconstruction, or improvement of any part of the public works, he may, subject to the confirmation and approval of the board of public works, appoint not to exceed two field engineers, who shall, under the supervision of the chief engineer, have immediate charge of the work in the field, and who shall be practical civil engineers, and shall be paid at the rate not to exceed two hundred dollars per month, and their actual and necessary expenses, while actively engaged in such work. Each field engineer shall give bond with good and sufficient sureties to the approval of the board of public works, the chief engineer, and the attorney-general, in the sum of ten thousand dollars, conditioned for the faithful performance of his duties, which bond shall be filed with the treasurer of state.

During such time as the chief engineer shall be actively engaged in the rebuilding, reconstruction, or improvement of any part of the public works, he shall, subject to the confirmation and approval of the board of public works, appoint such number of inspectors and other employes of the engineering corps as may be necessary to insure the prompt and faithful performance of all contracts and other work under his charge.

The chief engineer may remove any field engineer, inspector, or other employe of the engineering corps at pleasure, but shall have power to fill the vacancy only for the period intervening between the time of removal and the next meeting of the board of public works.

All expense accounts of the field engineers, inspectors and employes of the engineering corps shall be itemized and verified under oath and approved by the chief engineer and the board of public works before allowed or paid.

All payments on account of contracts or other work in connection with such rebuilding, reconstruction, or improvement, shall be made upon estimates to be furnished by the assistant engineers to the chief engineer, which estimates if approved by the chief engineer, shall be submitted to the board of public works, and when approved by said board, the board shall issue their warrant for the payment of the same as provided by law.

SECTION 3. That on and after the 28th day of April, 1906, all the powers and duties conferred on the Ohio canal commission by the statutes be and they are hereby conferred upon and vested in the board of public works and all sections of the statutes of Ohio relating to the said Ohio canal commission are hereby made applicable to the board of public works of Ohio; provided, however, that no land lease or sales of canal or state lands shall be made except with the written approval of the governor and attorney general.

Section 4. That said board of public works is hereby authorized to expend out of the canal earnings of the state an amount not exceeding four thousand dollars per annum to meet the salaries and necessary expenses of the employes and the actual expenses of the said employes of the board of public works when discharging the additional duties devolving upon them and heretofore imposed upon the canal commission.

Section 5. That on or before the 28th day of April, 1906, the canal commissioners shall deliver to the president of the board of public works at the office of said board all books, records, documents, papers, surveys, maps, plats, furniture and all other property of the state of any description in their possession or under their control as such commissioners.

Section 6. The canal commissioners shall file with the governor at the expiration of their term of office their final report as required by law covering the time between the date of their last report and the date of the expiration of their term of office.

Section 7. That said section 2 of an act entitled "An act defining the powers and prescribing the duties of the board of public works," passed May 14, 1878, and all acts and parts of acts inconsistent herewith be and the same are hereby repealed.

C. A. THOMPSON,

Speaker of the House of Representatives.

JAMES M. WILLIAMS,

President pro tem. of the Senate.

Passed April 2, 1906.

Following are the reports referred to:

REPORT OF JAMES C. WONDERS, CIVIL ENGINEER, IN CHARGE OF THE MIAMI AND ERIE CANAL IMPROVEMENT.

OFFICE, MIDDLETOWN.

"In compliance with your request and the rules and regulations which you have prescribed for the conduct of this office, as Assistant Engineer of the Improvement of the Miami and Erie Canal, under an appropriation made by the General Assembly, I herewith submit the report of the operations of this department for the period ending with the fiscal year on the 15th day of November, 1906.

I received my appointment, coming from you, and approved by the Board

of Public Works, April 10, 1906, qualified in accordance with the law and gave bond in the sum of \$10,000.00 and began work immediately.

Middeltown was selected as headquarters for this department and an office has been fitted up in the state warehouse building.

W. E. McElree, draftsman, George D. Baker, levelman and Joseph Schneller, rodman, were employed and began work April 30, and H. C. Baldwin was employed as a field assistant and began work May 28. A. H. Sawyer was employed making tracings and blue prints of maps in the Columbus office from April 29, to July 5, and H. W. Meacham has done special engineering work on that part of the canal between Dayton and Toledo. In addition to the above it has been necessary to employ on a few occasions, other assistance, the expense of which has been included in this report under the head of engineering expenses.

Mr. McElree and myself have done considerable work on the division from Dayton to Toledo.

The canal has been leveled from Cincinnati to Dayton and the levels have checked with U. S. Geological Survey Bench Marks. Cross sections have been taken and calculations for the dredging have been made.

Surveys of locks, aqueducts, overhead bridges and other structures have been made between Dayton and Cincinnati, including a survey of the site of the proposed new dam across the Miami about three miles north of Middletown. Surveys of a number of locks and other structures have been made between Dayton and Toledo including the Grand Rapids dam on the Maumee River.

Surveys, maps and cross sections have also been made showing the encroachment of the C. C. & St. L. Ry. along the canal between Miamisburg and West Carrolton.

Levels have been taken to fix the grade of the Miami Aqueduct.

Of the appropriation made for this work, \$100,000.00 was available between Dayton and Cincinnati and \$50,000.00 was available between Dayton and Toledo for the year 1906.

Plans and specifications have been prepared and contracts let as follows, Dayton to Cincinnati,

Lesourdsville Aqueduct, superstructure, steel truss with wooden trunk, date of letting June 12, 1906. Contractor, Capital Construction Company, contract price \$5.549.00.

Sunfish Aqueduct, superstructure, steel frame with wooden trunk, date of letting June 12, 1906. Contractor Capital Construction Company, contract price \$2,485.00.

Dredging canal from Middletown to Lockland estimated at 350,000 cubic yards. Contractor Acme Paving Company, contract price 12 cents per yard, estimated amount of contract \$42,000.00. Date of letting, July 10, 1906.

Constructing concrete additions to the abutment of the Lesourdsville Aqueduct, date of letting July 10, 1906. *Contractor, Frank Davis, estimated amount of contract \$1,339.23.

Constructing concrete additions to the abutments and a concrete pier at Sunfish Aqueduct, date of letting July 10, 1906, John Snyder, Contractor, estimated amount of contract \$1,068.49.

Rebuilding Locks No. 32, 33, 34, 35, 36, and 37 between Middletown and Lockland date of letting July 10, 1906, Frank Davis, Contractor, estimated amount of contract \$7,140.24.

Rebuilding Locks No. 38, 39, 40, 41, 42, and 43 between Middletown and Lockland, date of letting July 10, 1906, Frank Davis, Contractor, esimated amount of contract \$6,864.38.

Furnishing hardwood lumber on board cars at any station between Middle-

town and Lockland, date of letting July 10, 1906. W. J. Orr, Contractor, estimated amount of contract \$2,297.20.

Delivery of Portland cement at railway station between Middletown and Lockland, date of letting July 12, 1906. The Atlas Portland Cement Company, Contractor, estimated amount of contract \$5,100.00.

The total estimated amount of the above contracts between Dayton and Cincinnati being \$73,843.54.

Contracts have been let between Dayton and Toledo as follows:

Six Mile Aqueduct, date of letting July 12, 1906, David Beard Contractor, estimated amount of contract \$4,482.60.

Miami Aqueduct, two 80 ft. spans, date of letting July 12, 1906, Capital Construction Company, Contractor, contract price \$11,800.00.

Defiance Locks, No. 36 and 37, date of letting July 12, 1906. Schneider Bros., Contractors, estimated amount of contract \$10,549.00.

Lock No. 14, about five miles north of St. Marys, date of letting July 12, 1906. Schneider Bros., Contractors, estimated amount of contract \$6,944.50.

Spencerville Culvert, date of letting July 12, 1906. J. N. Kissner, Contractor, estimated amount of contract \$1065.40.

Delivery of 2500 barrels of cement at Defiance, 1600 barrels at .St. Marys and 1000 barrels at Spencerville, date of letting July 12, 1906, the Atlas Portland Cement Company, Contractor, estimated amount of contract \$8609.00.

The total estimated amount of the above contracts between Dayton and Toledo is \$43,450.50.

Of the work above described the dredging has not yet been begun, but the dredge is built and almost ready to begin work. The Lesourdsville Abutments are about two-thirds completed and the superstructure is being erected.

The Sunfish concrete work is almost finished. The Six Mile Aqueduct has one abutment nearly completed. The Middletown Lock has been completed and Amanda Lock is nearly done. Lock No. 37 at Defiance is finished and Lock No. 36 is about one-half done. Nothing has been done at Lock No. 14 near St. Marys. The Spencerville Culvert is finished. The delivery of lumber and cement has been very satisfactory. The materials have been of fine quality and delivery has been prompt.

No work was completed and ready for the final estimate at the time of filing the October Abstract.

The progress of the work has not been satisfactory but it is largely due to the scarcity of labor which has prevailed over this entire region.

All of the work except the dredging was to have been completed by November 1st. Under the terms of the contracts we could have taken the work from the contractors and employed other help to complete it, but I doubt if at any time I could have secured any more men than the contractors were working.

The work completed has been done in a satisfactory manner. Owing to the nature of this work it has been impossible to accurately estimate the quantities of the different kinds of work, and especially has this been found true in tearing down the old stone lockwalls. In each lock torn down thus far, the condition of the old masonry has been found to be worse than the surface would indicate and notably in the case of the Excello Lock which was estimated to have part of its masonry relaid and it was found on tearing down the walls by inspection by yourself and the Board of Public Works to be in such a bad condition that you have ordered it rebuilt with concrete after the manner of the Middletown Lock at an additional cost of about \$3000.00.

The work of building dams and pumping out the locks, repairing the lock floors, building and placing gates and back-filling against lock walls and abutments

is reserved for the forces of the superintendent of repairs and will probably amount to \$1000.00 per lock.

Work has been done by the superintendents and paid for from the fund appropriated for the improvement from Dayton to Cincinnati in the sum of \$17,029.42 and from the fund for the improvement from Dayton to Toledo in the sum of \$471.06.

The most important work to be done next year between Dayton and Cincinnate is the dredging of the canal from Miamisburg to Middletown. It is impossible for a boat to pass through this part of the canal and it should be opened to permit navigation from Dayton to Cincinnati. This work is estimated at 230,000 cubic yards that can be deposited on the banks at 15 cents per cubic yard, amounting to \$34,500.00 and 85,000 cubic yards that will have to be hauled to dumping grounds at a cost of 50 cents per cubic yard, amounting to \$42,500.00. Total cost of dredging, Miamisburg to Middletown is estimated at \$77,000.00.

Also contracts should be let for dredging from Lockland to Cincinnata amounting to 140,000 cubic yards that can be deposited on the banks at 15 cents per cubic yard amounting to \$21,000.00, and 70,000 cubic yards that will have to be hauled to dumping grounds at a cost of 50 cents per cubic yard amounting to \$35,000.00.

Total cost of dredging, Lockland to Cincinnati is estimated at \$56,000.00. Total estimate of this dredging is \$133,000.00.

Sluice gates for washing mud from the canal should be constructed at frequent intervals where proper outlets can be secured. These sluice gates should be substantial structures of concrete.

Where it is not necessary to raise the banks it is more desirable to deepen the canal by washing than by dredging, and the right to do such work in advance of the dredging has been reserved in this year's contract and will be in future contracts.

By using this method of excavating it may be possible to reduce the cost: of deepening the canal in those parts where the excavation cannot be deposited on: the banks.

The locks between Dayton and Middletown should be repaired and placed in condition corresponding to the work south of Middletown.

The old submerged stone arch culvert at Holwigger's should be replaced with a larger culvert built of concrete.

The headgates at Dines should be rebuilt. The old iron frames and gates can be used but the rest of the structure should be built of concrete.

Between Dayton and Toledo, the improvement of the Providence dam, the rebuilding of Buchland lock, and Locks 49, 51 and 52 in the City of Toledo, and the repair of the waste weir at Loramie Reservoir are improvements that call for immediate attention, but the money available is not sufficient for all of this work, and the part to be done will have to be determined upon.

I have merely outlined in the above report the work to be done during the coming year, but detail plans and specifications will be prepared for this work, to be presented at the January meeting of the Board of Public Works.

The money paid out for work done on this improvement to date, is as-follows:

DAYTON TO CINCINNATI.

Engineering, salaries	\$4,051	25
Engineering, personal expenses	1,934	52
Engineering, extra help	80	80 ·
Engineering, boarding boat	213	04
Office and field party equipment, supplies and livery	627	47
Advertising	30 0	45.

Operating State Dredges No. 4 and 6	1,600	15
Repairs Middletown Dam	258	36
Hauling lumber	22	50
Express on canal scrapers	3	00
Carpenter Shop supplies	21	55
Washing Lockland Basin	200	62
Paving under Miamisburg Aqueduct	35 3	01
Pointing walls Shepherds Run Culvert	146	60
Scraping canal Dayton to West Carrolton	13,455	61
Lockgates castings	21	10
Portland cement	2,3.3	25
Hardwood lumber	555	96
Middletown Lock	2,423	72
Amanda Lock	866	48
Lesourdsville Aqueduct	3,535	87
Inspectors	290	00
Sunfish Aqueduct	1,548	9୪
-	\$34,844	29
DAYTON TO TOLEDO.	-	
Engineering fees	\$3 10	00
Engineering, personal expenses	156	
Engineering, miscellaneous expenses	66	
Advertising	61	57
Inspectors	476	00
Portland cement	4,104	90
Lock No. 36	612	80
Lock No. 37	5,315	23
-	\$11,102	61

REPORT OF JOHN A. HANLON, CIVIL ENGINEER IN CHARGE OF THE NORTHERN DIVISION OF THE OHIO CANAL. OFFICE, AKRON.

In compliance with the regulations of your office I submit herewith a report of the operations under the Act of the Seventy-seventh General Assembly of Ohio, providing for the improvement of the Northern Division of the Ohio Canal, covering the last seven and one-half months of the fiscal year, ending Nov. 15, 1906, and extending over that portion of the Canal between the Muskingum River at Dresden and the north end of Portage level at Lock 22 between Akron and Cleveland, distance 117 miles.

DRESDEN LOCKS.

At the time of taking charge of this Division pursuant to my appointment in April 1906, no construction work was at that time under contract, except that under contract with the Clifton Bros. of Durant, Ohio, for the rebuilding of Lock No. 3 (Outlet Lock), at Dresden, Ohio, and the repairing of Locks 1 and 2 at the same place.

This contract was entered into in Nov. 1905, and at the time I took charge, Lock 3 had been entirely excavated and the contractors were ready to begin the new work

The work contracted for comprised the entire rebuilding of Lock No. 3, and the necessary repairs to Locks 1 and 2.

Lock No. 3 had been partially destroyed by the flood waters and ice gorges in the Muskingum River, and was in consequence entirely rebuilt.

Locks 1 and 2 required new gates, reflooring in part, rejointing of old masonry and new wing walls in place of timber cribs.

The new masonry was built mainly of concrete; the mass consisting of about two-thirds gravel concrete and one-third selected stone from the old work, imbedded in the gravel concrete.

Lock No. 3 rests upon a rock foundation.

The elevation of lower miter sill provides for a depth of six feet of water from the crest of the proposed Dam No. 11 on the Muskingum River between Dresden and Zanesville as located by the U. S. Engineer, and from whose office, elevations were furnished showing relative location of miter sills at Lock No. 3.

The contract was completed in July, together with such repair work as was performed by the State repair force, and the entire cost of the work done on Locks 1, 2 and 3 amounted to \$12,073.13.

AKRON LOCKS.

Immediately after assuming charge of the improvement work on this Division, with office at Akron, I proceeded to employ and organize an efficient force for both field and office work, and at once began the preparation of the surveys, plans and specifications for rebuilding the 21 locks at Akron, extending northward from the Summit level through the City of Akron, a distance of 23 miles. Plans were prepared for each lock and approximate quantities made up for the information of contractors.

The plan of the new lock work is on same general plan as the old work. The side walls instead of standing plumb, have a batter of six inches, thus having a width of 16 feet at top and 15 feet at bottom. A uniform plan of wing was adopted differing somewhat from the old plan.

The clear length of lock chamber is 87 feet, a depth of 5.25 feet of water is provided for over miter sills. It was found that with few exceptions the two bottom courses, of about 4 feet in depth, were in good condition and with the breast wall under upper miter sill were left in place. This reduced the original estimate of quantities in masonry over 100 cubic yards in each lock.

The new masonry is mainly of gravel concrete of a 1-3-6 mixture. Our specifications provide for the use of the old lock stone to the extent of about one-third of the mass. The selected stone are imbedded in the concrete in layers, all stones separated from each ofther by not less than eight inches of concrete, and no stone to be laid nearer than twelve inches of top, face or end of a wall.

In connection with the preparation for rebuilding the Akron locks, plans were made for the rebuilding of Lock 16 at Trenton, in Tuscarawas County.

This lock was in such condition as threatened closing up the canal at that point.

The Akron work consisting of the 21 locks, together with all of the smaller canal structures intermediate, consisting of sluices, culverts, spillways, etc., was divided into six sections of 3 and 4 locks each, including the intervening small structures, the lines between the sections being fixed at such points through the city as would give contractors of each section independent access from some public street or alley.

The lock work is divided in sections as follows:

Section 1, Locks 1, 2 and 3.

Section 2, Locks 4, 5, 6 and 7.

Section 3, Locks 8, 9, 10 and 11.

Section 4, Locks 12, 13 and 14.

Section 5, Locks 15, 16, 17 and 18.

Section 6, Locks 19, 20 and 21.

Pursuant to advertisement in the principal Engineering and Contract Journals of the country, as well as in many city and country newspapers, bids were received in Columbus at noon on the 12th day of July for the rebuilding of 21 locks and smaller canal structures at Akron, as also for the rebuilding of Lock 16 at Trenton in Tuscarawas County.

In view of the extent of the Akron work, its character number of bidders and more or less adverse comment on the awards made by the Board of Public Works, I feel justified in going into details and occupying space to set out plainly the whole proceeding.

The following tabulation shows the names of bidders on the Akron work, the prices on each section, and the aggregate of each bid computed from the estimated quantities in the principal classes of the work:

Contractors.	Sec.	Dry Exc.	Wet Exc.	Concrete.	Total of bids.
S. W. Parshall	1 1 1 1	\$0.01 .20 .50 .40	\$0.01 1.00 1.50 1.00	\$3.25 3.10 3.40 4.55	\$8,175 00 9,084 00 11,619 00 13,683 00
S. W. Parshall	2 2 2 2	.01 .30 .50 .40	.01 1.00 1.50 1.00	3.50 3.45 3.40 4.55	12,663 10 14,879 50 16,265 00 19,366 50
S. W. Parshall	3 3 3 3 3	.01 .20 .50 .48 .25	.01 1.00 1.50 1.40 .60	3.25 3.10 3.40 3.35 4.20	11,493 10 12,792 00 16,459 00 16,089 00 17,187 00
S. W. Parshall	4 4 4	.01 .20 .80 .20 .50	$\begin{array}{c} .01 \\ 1.00 \\ 2.00 \\ .80 \\ 1.50 \end{array}$	3.25 3.20 5.15 4.00 3.40	8,778 90 10,281 00 20,208 00 12,528 00 13,176 00
S. W. Parshall. McGarry & McGowan. Farver & Penick. J. N. Kissner. J. A. Swingle. James Wildes	5 5 5 5 5 5 5	.01 .20 .75 .40 .30	$egin{array}{c} .01 \\ 1.00 \\ 2.00 \\ 1.00 \\ .80 \\ 1.50 \\ \end{array}$	3.35 3.20 4.65 4.40 4.90 3.40	11,738 50 13,036 00 22,897 00 18,702 00 19,662 00 16,352 00
S. W. Parshall. McGarry & McGowan. J. N. Kissner E. McShaffer & Son. James Wildes	6 6 6 6	.01 .20 .40 .50	.01 1.00 1.00 1.50 1.75	3.40 3.20 4.55 3.50 3.75	8,440 40 9,199 00 13,482 50 11,695 00 12,340 00

It will be noted that Mr. Parshall was the lowest bidder on each section, having bid a merely nominal price on each of the two classes of excavation, proposing in fact, to perform about 15% of the work for practically nothing, and with no increase of prices on the other classes of the work to offset it.

It will also be seen, that had Parshall bid for "wet" and "dry" excavation at the lowest prices bid by any other contractor, he would not have been the lowest bidder in the aggregate on a single section.

The unbalanced features of Mr. Parshall's proposal, together with his experience in this class of work, naturally created doubts in the minds of the Board as to the expediency of awarding a large contract under these circumstances.

There was not a single contractor of the nine, who bid on the Akron work who had equipment sufficient to complete one-half of the contract within the time limit, or who would undertake it, and every one of the bidders were experienced men and had equipment to place on the work if awarded them, except Mr. Parshall.

Some of Mr. Parshall's ill advised and over zealous friends attempted to bring about legal proceedings to enforce the award to him, but fortunately, without success.

In the preparation of the specifications, the contingency of a low bidder demanding the award of all the work because he was the low bidder on all, was anticipated, and the following clause inserted in the "Information for Bidders."

Contractors may bid on one or more sections, making one price for each class of work on each separate section, and contractors must bid with the condition, that they will accept an award and enter into contract to construct the work on such sections, whether one or more, as may be awarded to them by the Board of Public Works, irrespective of the number of sections upon which the contractor may be the lowest bidder."

After a recess of one week, the Board decided to divide the work in three contracts as follows: Sections 1 and 2 to P. T. McCourt; Sections 3 and 4 to S. W. Parshall and Sections 5 and 6 to McGarry & McGowan, and so awarded the contracts. McGarry & McGowan and McCourt were the next lowest bidders.

The aggregate of these contracts as awarded to the several contractors on their bids per section was as follows:

P. T. McCourt, \$23,963.50; S. W. Parshall, \$20,272.00; and McGarry & McGowan, \$22,235.00; total, \$66,470.50. S. W. Parshall's aggregate bid on six sections, \$61,289.00.

The statement has been made from time to time since the awards were made and the work in progress, that the disposition of the contracts as awarded by the Board involved a considerable loss to the State, to the extent of the difference between the aggregate bid on all sections by Mr. Parshall and the aggregate of the contracts as awarded, something over \$5000.00.

The progress of the work up to this time shows that the Board made no mistake in judgment in dividing the Akron work, and had they awarded the entire contract to Mr. Parshall, the difference of \$5000.00 would have been expended several times in expense of Engineering and inspection and delays in completing the contract.

The quantities in the lock work as actually built will be less than the original estimates. It has been found practicable to make the excavations in earth in rear of old walls with steeper slopes than estimated, and over 100 cubic yards of old masonry in each lock has been found in good condition and left in place. This occurs in the bottom courses in chamber of lock and breast wall.

A number of sluices, spillways and other minor canal structures, which were not carried into the original estimates and none of which have as yet been built, will probably bring the cost of all the structures up to the total of bids of contractors to whom the work was awarded.

It has been deemed vest to have the contractors complete the locks and

then build the small structures, which require less equipment to do the work, and may be built largely from surplus stone from the old locks.

It having been decided by the Board to furnish all cement used by contractors on the work, proposals were invited from cement manufacturers for furnishing and delivering cement at different points on the canals, 12,000 barrels of which were allotted to Akron.

Of proposals received, the Edison Cement Co. was the lowest bidder at \$1.60\frac{1}{2} per barrel in paper sacks.

CEMENT CONTRACT.

On inquiry concerning this cement, it was found that it was comparatively a new brand, and from tests made at Cleveland, showed a variableness in its "setting" properties, and not being a well known cement in this section of the State, it was decided to award the contract to the next lowest bidder, The Atlas-Portland Cement Co. of 80 Broad Street, New York, with works at Northampton, Pa. Their proposal was \$1.63 per barrel in paper sacks delivered at points designated on the Ohio Canal.

This office has had tests made from nearly every car of cement received, by Cleveland chemists, and the results almost uniformly have been above the requirements of the contract.

Owing to complaints of the contractors in regard to breakage of paper sacks and consequent delays in caring for it, since Oct. 1st, cement has been ordered shipped in cloth sacks.

The cement is charged at \$1.90 per barrel in cloth sacks, with a rebate of 27 cents per barrel for sacks returned when empty.

LOCK 16. TRENTON.

On July 12th, as per advertisement inviting bids for the Akron locks, bids were received for rebuilding Lock 16 at Trenton, Tuscarawas County. Three proposals were received from G. W. Murphy, McGarry & McGowan and J. N. Kissner, aggregating \$5809.50, \$5329.00 and \$4324.00 respectively.

The work was awarded to J. N. Kissner at his bid of \$0.35 per cubic yard for dry excavation; \$1.00 per cubic yard for wet excavation, and \$3.75 per cubic yard for concrete masonry.

About the time the contractor began operations, in connection with the Superintendent of Repairs, it was decided to use the old stone in Lock 16 to protect the canal bank at a point between Locks 16 and 17, where the river had encroached and some protection had been already made with piling.

LOCK 16, TRENTON.

To use the stone in this way, necessitated an allowance to the contractor for the gravel concrete substituted for the stone so used, estimated at one-third of the entire masonry, and adding \$1.25 per cu. yd. for the concrete masonry.

This change provided for the protection at a considerably less cost than could have been secured from any other source.

MUD RUN CULVERT.

On August 28th, proposals were received for building a pipe culvert under the canal about one mile east of Barberton, at Mud Run.

The construction of this culvert became necessary on account of the improvement of Mud Run under the Ditch law by the County Commissioners, the stream being dredged out to a depth about two feet lower than the bottom of the old culvert. The culvert which was a part of the original canal construction was of timber, but in good condition, however, to give the land owners the full benefit of the improvement for which they are assessed, the Board ordered the construction of a new culvert at the grade established by the County Commissioners.

The culvert has been built of three lines of 30 inch d. s. sewer pipe, the lines of pipe spaced eighteen inches apart and imbedded in a concrete foundation to half their depth. The culvert is 100 feet in length and has concrete head walls at each end.

The work has cost about \$2,400 out of which, the lumber used for dams and forms not left permanently in the work, has been recovered and is available for other purposes.

LUMBER CONTRACT.

On July 19th, pursuant to advertisement, bids were received for furnishing oak lumber for lock gates at Akron.

There were two proposals received, one from The Bowers Conkle Lumber Co., of Massillon, Ohio, and one from E. J. McLaughlin & Co., of Canal Fulton, Ohio, both bidding \$29.00 per 1,000 feet B. M.

Later, contract was made with The Bowers-Conkle Lumber Co., for 80,000 feet B. M., and with E. J. McLaughlin & Co., for 40,000 feet B. M. at the prices

Also, on July 19th, proposals were received for dredging the Walhonding feeder of the Ohio canal from Roscoe to the Six Mile Run.

The bids were as follows: -

McGarry & McGowan, 60,000 cu. yds. @ 22c	\$13,200.00
W. H. Schott, 60,000 cu. yds. @ 16c	9,600.00
J. N. Kissner, 60,000 cu. yds. @ 12	7,200.00

The work was awarded to J. N. Kissner and contract entered into August 1st. No work will be done on this contract until the completion of a new dredge in January.

DREDGING WALHONDING CANAL.

In the agreement between the Board of Public Works and Wm. Himebaugh of Coshocton, Ohio, for the use of the surplus water from the Walhonding Canal for power purposes, (of which the above mentioned dredging contract is one of the undertakings on the part of the Board of Public Works,) it is provided that the State will deepen and widen the channel of the canal "so as to give a minimum cross section at least equal to the minimum cross section of canal as shown by exhibits "C" and "D" of the Chief Engineer's Report to the Board of Public Works for the year 1903," etc. It has been ascertained from cross sectioning this canal channel, that at points along the first mile from the head of the canal, the area in the cross section "C,", (which is the minimum referred to in the agreement), can not be obtained with the ordinary earth slopes, on account of the canal originally having been built with a water line width of only 40 feet.

To compensate for this it has been decided to deepen the channel from the guard lock (one-half mile below dam) to Roscoe and increasing the fall of the level as much as practicable between the two fixed points, to-wit:—the miter sills of guard lock and the back of arch culvert near Roscoe, and in this way increase the flow to as much or more than the estimated flow as contemplated in the above mentioned agreement.

This change of cross section will increase the quantities over and above the quantity as estimated at the time contract for dredging was made, about 25,000 cubic yards.

Another undertaking under the above mentioned agreement was to rebuild the Six Mile Dam on the Walhonding River.

The Six Mile Dam is in the Walhonding River at the head of the last section of the old Walhonding Canal which is now used as a feeder for the Ohio Canal at Roscoe, in addition to furnishing water power for two or three mills. The distance from the inlet to this feeder at the dam, to Roscoe, its junction with the Ohio Canal, is six miles.

The Six Mile Dam is a timber crib structure, filled with stone, built about 70 years ago.

It rests partly on rock bottom, partly on the gravel. There has been a movement of the structure as indicated by its alignment, at some time in the past.

Its stability and permanency is a matter of conjecture. As it stands, its worst defect is leakage. To repair this leakage, for which proposals were received on November 14th, would cost about one-fourth that of a new dam.

Bids were advertised for and received at Columbus on July 19th. Several proposals were received on the State's plan for a concrete dam and one for a concrete steel.

Owing to doubts as to the stability of the dams as planned in either the concrete steel, owing to conditions met with entirely different from storage dams, mainly that of the flood height in the Walhonding River, it was directed to readvertise for bids, which was done and bids were again received on October 9th, both on plans prepared in this office, and a special concrete steel plan submitted by the W. H. Schott of Chicago.

Owing to the cost as shown by lowest bids, all bids were rejected and the work again readvertised.

SIX MILE DAM.

Plans were prepared in this office after thorough surveys as to choice of location, and a design adopted which incorporated the old structure as a part of the new, the new concrete work being built against and on the down stream side and over the top of old dam, both old and new parts being anchored together as well as anchored to the rock bottom so far as the rock extends within reach and further, by anchoring to a pile foundation.

This plan provides for a very substantial and permanent structure with the minimum amount of concrete masonry possible to insure stability and overcome the defects in the old dam.

At the same time specifications were prepared for such repairs on the old dam as would prevent leakage only, and bids invited in connection with the bids for a new dam.

. On November 14 the following proposals were received. The amounts noted include the estimated amount of cement required as furnished by the State, which was added as \$3,856.00.

Wm. Brode	\$33,626.00
Westhafer Cons. Co	32,498.00
J. N. Kissner	22,806 00
W. H. Schott	24,456. 00
Same, Special plan	20,744.00
Engineer's stimate	23,198.50

REPAIR SIX MILE DAM.

Two bids were secured for the repair work as specified, both in excess of \$7,000, which is out of proportion to the benefits so long as only the leakage is prevented and nothing added to the permanence of the old dam. The difference

between the cost of an entire new masonry dam and a combination of old and new at the prices bid, is about 9,000, so that the old dam has a value of that amount when used in the combination shown in plan.

The foregoing covers all the improvement work on which bids have been invited or contracts entered into for construction.

1907 work.

Referring to the probable extent and class of work in contemplation for 1907, the appropriation available for the new work may vary to the extent of the estimated outlay for the new reservoir at State Mill and for the proposed Six Mile Dam, both of which improvements are now pending the action of Board of Public Works.

In either event there will no doubt be funds available to carry on the masonry work of locks, aqueducts and minor canal structures from Akron to Trenton which would cover that portion of the canal over which the Tuscarawas Co. oal traffic would be carried.

It would seem a good policy to contract the dredging on such portions of the Akron Trenton section as are now in the worst condition as to depth of channel, in order that on the completion of the locks, at least partial use might be had of the canal for the benefit of shippers and boatmen.

The dredging is a class of work quite unlike any other part of the construction work,

DREDGING.

In the first place, dredging machinery, as built for general work as ditches, rivers and harbor work, etc., is not adapted to our canal work on account of the limitations in width and heighth, necessitating a width to pass through the locks and of a heighth sufficient to pass under bridges having only ten feet of headway.

Therefore, contractors, with few exceptions, must bid on our work without equipment, intending if a contract is awarded them, to have a dredge built, which requires months of time. It is something of a problem to determine the length of canal or yardage that should be allowed any one contractor, or which would justify a contractor to purchase plant and engage in the business with an investment of about \$10,000.

I am of the opinion, however, that contracts of 150,000 cu. yds. would justify contractors in taking contracts of the quantity mentioned.

I am also of the opinion that it would be a profitable investment for the State to own and operate at least one modern dredge on the Ohio Canal.

The State would be justified in such purchase where a contractor would not, inasmuch as the State after the canal improvement is entirely completed will have frequent occasion to use it at bars, slides, etc., while a contractor would have the plant on his hands without prospect of further work where it could be advantageously used, and would necessarily have to rebuild for use on general dredge work.

It is evident that for any considerable amount of dredging to be done in 1907, contracts should be made as early as possible to enable at least a part of the dredges to be built in time to get into operation by next summer.

During the past summer and fall, I have had the canal cross sectioned from Lock 22 north of Akron to a point about one-half way between Navarre and Bolivar.

The quantities are not computed, but that could soon be put in shape for estimating purposes.

PLANS FOR 1907.

As soon as masonry operations are at least in part suspended on account of weather, I will organize a party for a survey of locks south of Akron and preparation of plans for the rebuilding of such as may be designated as a part of the work for next season.

The construction of the proposed reservoir near State Mill, connecting with Long Lake, requires comparatively a small amount of earthwork to impound the required depth of water, and operations toward the construction of the embankments and clearing the land to be flooded can be begun early in the spring, or as soon as the purchase and occupation of the land can be accomplished.

In making estimates of the amount of new construction work which may be done with the funds available for 1907, allowance must be made in anticipation of higher prices than has been current during the past half year when our contracts were made.

The lock work now under contract is being done at extremely low prices, and the scarcity of labor and consequent increase of laborers wages coming on in the latter part of the season, has been one of the contributing causes in the delay in completing contracts, here as well as all over the country, so that many contractors having unfinished contracts on hands, as well as the scarcity of labor likely to be a continuing factor, will have the effect of lessening the number of bidders, as well as causing a material increase in prices bid on our new work. It will expedite our work under these unfavorable conditions to let the work in smaller contracts, and be governed largely by the amount of equipment possessed by the contractors and the average monthly progress he is likely to make under labor conditions, as we may expect them next year.

Every contractor, large or small, has a certain following or organization which he can bring to new work and which he can probably maintain and increase from such local labor as is available in the vicinity of the work.

The Board and the engineering department should be the judges of the size of contracts awarded, after acquainting themselves with the facts as to the contractor's previous experience, responsibility and plant for prosecuting the work.

I hope to be able to report to you in the early part of January respecting the condition of the masonry and other structures between Akron and Trenton which require either rebuilding or repairing and estimate of cost of same."

J. A. HANLON.

REPORT T. D. PAUL, ENGINEER IN CHARGE, CANAL CLEVELAND TO PORTAGE LOCKS.

"I herewith submit my report of the work done under my supervision on the north end of the Ohio Canal during the year ending Nov. 15th, 1906.

We have constructed four additional sluice gates and one waste way 60 feet long with reinforced concrete tow path bridge.

The five mile lock No. 41 was entirely taken out and rebuilt. It was necessary to take out the bed timbers and replace them 18 inches lower than they were. Ever since the removal of the 3 mile lock the five mile lock has been too shallow for even a four foot canal; and to get a five foot depth, the only feasable plan was to lower and rebuild the entire lock.

The cost was \$10,750.00 exclusive of the gates. The dam at Brechsville on 17 mile feeder was entirely rebuilt and the old part of the Peninsula dam was also taken out and rebuilt,

At the Peninsula feeder new head gates, sluice and a tow path bridge were built of stone and concrete in a very substantial manner making a better

and more efficient arrangement than it ever was before. This will ensure a better water supply from Peninsula, north. Locks 27, 34 and 45 were also rebuilt during the year.

Gates have been completed for all the locks from 22 to 42.

Eleven miles have been dredged under a contract with D. E. Sullivan & Son from Brecksville to one mile south of Lock 41. The amount removed was 71,355 cubic yards at 15 cents per yard.

They have, had a dredge constructed at Marion, Ohio.

It is a much better machine than the State dredges which were built over 30 years ago. A still better dredge could be built by the State; and in my opinion no better investment could be made, than to supply the Northern Division with dredges of proper construction, and place them in service by our own forces.

We have raised the County bridges over the canal at Alexander, Tinker's Creek, 12 mile lock, South Park and Zimmerman's, so that all the County bridges in Cuyahoga County will have 10 feet clearance.

Considerable time had been devoted to a survey of the canal; and canal lands through Akron. A base line has been laid out conforming to the canal lines; and measurements have been made with steel tapes, corrected for strain and temperature.

Angles have been checked very carefully; and the whole connected with street and block lines; which have also been surveyed and marked; so that the survey can always be retraced.

Considerable measuring has been done to locate the property lines permanently. The canal property in Akron was merely taken by the State and there are no deeds. Nor were there any maps or plans made showing what was taken. The evidence on which we must base our title, is largely the occupation; every year encroachments are made, and evidence obliterated by adjoining owners. A complete survey should have been made years ago, as the lands are quite valuable and considerable has been lost. During the coming season we expect to finish the work in a very complete manner."

I respectfully request any specific directions that you may be pleased to offer in all matters pertaining to the conduct of the affairs of our department, promising that I will, in the future as in the past, exercise my best judgment and energies in carrying out your wishes.

I shall continue to do myself the honor of addressing to you special reports in the interests of our department on any matter requiring the particular attention of your Board.

It is my intention to request the honor of a conference in the near future for the special purpose of discussing ways and means for such a reorganization of your department as it may appear will best subserve the interests and economical management of our joint department, and the possibility of amending some of the old laws now regulating it that may seem cumbersome.

It seems to me that we are about to enter upon a new era in canal affairs requiring regulations more in accord with modern ideas of economics.

I beg to add in this connection that the management of the public works is greatly restricted by the necessity for close observance of certain laws and regulations many of which date back to the time when the public works were first inaugurated, and which, though quite inapplicable to present methods and conditions, have never been repealed, but still remain in force.

In accordance with the provisions of law, the Board have appointed and have now in their employ, six superintendents of repairs, two on the Northern Division of the Ohio and Erie Canal, one on the Southern Division of the Ohio and Erie Canal, and three on the Miami and Erie Canal.

Under the rules and regulations of the department, each Superintendent of Repairs renders an annual report of his sub-division, giving a description of repairs and all new work done during the fiscal year, with a statement of the cost of maintenance, the name of each section and dredge foreman, with postoffice address and time of service of each in the capacity designated, and such other information relating to the particular territory under his charge as may be deemed of interest.

These reports have been rendered and are herewith submitted and made a part of this report for the year and to them I invite your careful attention, particularly to the statements contained therein showing the amount and character of the work done under the direction of each of said superintendents during the year, and demonstrating in many instances the bad physical condition of the canals and the need of general improvements and betterments. In fact, these reports reveal the undeniably worn out condition of the public works and the physical impossibility of making a creditable showing for the department, no matter what meritorious purpose the Board and its officers may exert and bend their best efforts and energies to accomplish.

It is expected that as soon as the improvements now under contemplation are made, there will no longer be the constant necessity for these many repairs, which require a large expenditure of money and consequently do so much to swell the cost of maintenance, and that your officers will therefore be able to give a greater amount of time and energy to other and more profitable fields of work, securing better results from a business point of view.

In concluding, it again gives me much pleasure to commend the integrity, energy and faithful service of the several officers employed in your general office and on the line of the public works, and to extend to your honorable Board, my thanks and the assurance of my appreciation of your kind consideration and encouragement at all times rendered me in the discharge of my official duties.

I also beg the pleasure of acknowledging in this report the kind and courteous treatment of the officials of the State Auditor's office and of the Attorney General's department, as well as my obligations to his Excellency, Governor Harris, for the kindly treatment he has always accorded me and the absolute fairness and liberality with which he has

considered the needs of the department so far as it lay within his power to do so.

Respectfully submitted,

CHAS. E. PERKINS,

Chief Engineer Public Works of Ohio

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SUB-DIVISION REPORTS

OF

SUPERINTENDENT OF REPAIRS

MADE TO THE CHIEF ENGINEER

1906

(63)

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SUB-DIVISION REPORTS.

AKRON, OHIO, Dec. 20, 1906.

CHAS. E. PERKINS, Chief Engineer Board of Public Works, Columbus, Ohio.

SIR: — I hereby submit my fourth annual report of repairs made on Sub. Div. No. 1, Grand Div. 1, Ohio and Erie Canal during the fiscal year ending November 15, 1906. Chas. Hatch,

Superintendent of Repairs.

This subdivision extends from Cleveland to Navarre, a distance of seventytwo miles.

FOREMEN.

Charles Stebbins, foreman Repair Boat No. 1. *J. I. Johnston, foreman Repair Boat No. 2. John Moore, foreman Repair Boat No. 3. James Roach, foreman of dredge.

LOCKS.

Kettlewell locks received two bucking beams, old stone miter still left in and faced up with 4×8 timbers, lower miter still put in and grouted also 35×15 ft. of lower end was sheeted with 2 in. plank.

90 ft. of the old stone wall left in on the tow-path, also 60 ft. in berm side was trimmed off from 1 to 4 in., then pointed and grouted.

The lock was cleaned of debris left in by contractor and pumped out 5 times during the season on account of heavy rains.

RED LOCK.

Red Lock received 2 new bucking beams, steel miter sill put in at upper end of locks and grouted, 18×15 ft. at upper end was sheeted with 2 in. plank, 50×15 ft. of lower chamber of locks was sheeted with 2 in. plank, 70 ft. in berm side and 60 ft. in tow-path side of the old walls were trimmed off from 1 to 5 in.

The lock was cleaned of debris left in by contractors, and water pumped out 3 times on account of springs.

LOCKS.

Wallace lock received 2 new bucking beams at upper end, steel miter sill put in at upper end. 42×15 ft. of lower chamber was sheeted, 16×15 ft. of lower chamber was sheeted with 2 in. plank.

65 ft. on berm side and 50 ft. in tow-path side of old stone wall was trimmed off 2 courses from 1 to 4 in., it was then pointed and grouted, the sand had to be wheeled in wheel-barrows across old river bed and hauled with 4 horses across plowed ground.

The lock was cleaned of debris left in by contractors.

Boston Locks received 2 new bucking beams at upper end, steel miter sill at upper end and grouted 18×15 ft. at upper end was sheeted, 40×15 ft. of lower chamber was sheeted with 2 in. plank.

^{*}J. I. Johnston retired from the State's service just prior to the end of the present fiscal year.

⁵ B. OF P. W.

Ninety ft. on tow-path side and 70 ft. on berm side of old walls were trimmed off 2 courses from 1 to 5 in., it was then pointed and grouted.

Lock was cleaned of debris left by contractors.

Lonesome Lock received 2 new bucking beams at upper end steel miter sill at upper end and grouted. 40×15 ft. of lower chamber was sheeted, 18×15 ft. of upper end was sheeted with 2 in. plank.

Ninety ft. of tow-path side and 90 ft. of berm side of old stone walls were trimmed off three courses from 1 to 6 in., it was then pointed and grouted.

Lock was then cleaned of debris left in by contractors and water kept pumped nights.

Peninsular Feeder Lock received 2 new bucking beams at upper end, steel miter sill at upper end 60×15 ft. of lower end of chamber was sheeted, 16×15 ft. of upper end of chamber was sheeted with 2 in plank, lower miter sill put in and grouted, 90 ft. on berm side and 110 ft. on tow-path of old stone walls were trimmed off 2 to 3 courses from 1 to 5 in., then pointed and grouted.

Lock was cleaned of debris left by contractors and kept water pumped nights. Peninsula Lock received 2 new bucking beams at upper end, lower miter sill put in and grouted. 115 x 15 of lower chamber was sheeted with 2 in. plank.

Lock was cleaned of debris left in by contractors.

Johnny-cake Lock 50×15 ft. at lower chamber sheeted, 16×15 ft. at upper end of lower chamber sheeted, 16×15 ft. at upper end of lock was sheeted with 2 in plank.

Seventy ft. on tow-path side, 60 ft. on berm side of old stone walls were trimmed off 2 to 3 courses from 1 to 4 in. in depth, then pointed and grouted.

CANAL BANKS RAISED AND REPAIRED.

A concrete sluice on 8 mile level (north of pumping station) went out causing a break in bank 80 ft. long, 40 ft. wide, 20 ft. deep.

Fifty sticks of dynamite were used to clear away debris of concrete sluice.

On 8 mile level over culvert a retaining wall $3 \times 12 \times 6$.

On 8 mile level on berm side a retaining wall 35 x 24 x 10.

After finishing work culvert broke and work all had to be done over.

On 11 mile level at ends of culvert tow-path side 36 x 18 x 9.

On 11 mile level a retaining wall berm side 36 x 8 x 7.

WASTE WEIRS AND TUMBLES.

Built wooden trunk 100 ft. long, 8 ft. wide, 4 ft. high around 5 mile lock to carry water to manufacturers while lock was being built.

New concrete waste weir at 8 mile lock was cut down 15 in.

New concrete waste weir at 11 mile lock was cut down 12 in.

Waste weir at Lock 10 (Akron) filled.

Waste weir at Lock 5 (Akron) lowered.

Waste weir-at Lock 2 (Akron) lowered.

New concrete waste weir at Lock 1 (Akron) lowered.

Waste weir at Lock Wolf Creek grouted.

TOWING BRIDGES.

Towing bridge on Long Pinery, new plank put on.

Towing bridge at Peninsula, 2 stone abutments 15 ft. long, 9 ft. high with concrete covering 1 ft. thick, 12 ft. wide, 11 ft. long, also reinforced with steel rails and wire netting.

DAMS.

Brecksville dam was repaired with 3 one ft. timbers, also filled with concrete and planked, length 150 ft.

A false dam was built at Brecksville 150 ft. long, 4 ft. high.

Peninsula Feeder Dam was torn out at west end, a distance of 45 ft. and repaired with 1 ft. sq. timbers which were 3 timbers high in front, 2 timbers high in back, it was then cross tied with 4×12 timbers 12 ft. long, paved with stone and graveled.

A false dam built 75 ft. long, 5 ft. high.

FEED GATES.

At east end of Peninsula the old flood gates and stone abutments were torn out and relaid. The walls are 4 ft. thick, 12 ft. long, 12 ft. high, also 2 new flood gates.

At upper end of Peninsula Feeder 2 new concrete walls were built, one 3 ft. thick, 16 ft. long, 12 ft. high; one 3 ft. thick, 28 ft. long, 12 ft. high; one new feeder gate.

DREDGES AND BOATS REPAIRED.

State Boat No. 1 repaired as follows: 32 new floor timbers, new dunage floor, 26 new carlin and new gravel deck, new canvas in stern deck.

Boat scraped and 3 coats of paint, also 2 coats on cabins, new nails.

AQUEDUCTS.

Eight mile aqueduct was cleaned of debris left in by contractors, put in flood gates on berm side.

Twelve mile aqueduct was cleaned of debris left in by contractors, twice during summer.

Peninsula aqueduct repaired as follows: new plank and concrete at north end, timber for gate to rub against, cut holes in stone for gates and concreted around timber, timber put from walls to top of aqueduct to clear tow-lines, and built concrete blocks to hold railing at end of towing bridge.

MISCELLANEOUS.

Removed bars north and south of 8 mile lock left by contractors.

Removed 2 bars at culvert south of 8 mile aqueduct dams, were 3 ft. high, 40 ft. long.

Removed 2 dams on 11 mile level.

Removed 2 dams at Kellog's culvert 3 ft. high, 40 ft. long.

Removed 2 dams at 12 mile lock.

Removed 2 dams at 14 mile lock.

Removed 1 dam at 17 mile lock.

Removed 2 dams at Kettlewell.

Removed 2 dams at Red Lock.

Removed 2 dams at Wallace.

Removed 2 dams at Boston.

Removed 1 dam at Feeder.

Removed 1 dam at Peninsula.

Built dam across canal north of pumping station 50 ft. long, 4 ft. high, where sluice went out so American Steel & Wire Co. could get water.

Helped haul lumber and cement to repair sluices and culverts on 8 mile levels.

Boated dirt to fill up in front of 1st and 2nd sluices south of 5 mile lock.

When locks were first filled from Lock 17 to Cleveland had to keep mens cleaning paddles and tumbles.

Boated dirt and gravel to stop leaks on 8 mile level.

Broke ice 3 days in Feb. on 8 mile level trying to get boat to 17 mile lock but could not.

Took Chief Engineer, Board of Public Works and State Senators on an inspection trip from 17 mile lock to Cleveland.

Raised sunken boat "Two Sisters", loaded with logs. Raised State Boat No. 2 and House Boat on peninsula level.

Cut brush and posts to build fence 300 ft. long, 3 ft. high, around "Devil's Elbow," to hold dredge dirt from going into river.

Unloaded 120 sacks of cement at Brecksville and used same in pointing and grouting locks.

Unloaded 1 car crushed stone at Peninsula for feeder walls.

Unloaded 120 sacks of cement at Boston for grouting locks.

Unloaded 7 iron pipes at Boston used at sluice.

Built 2 dry stone walls on each side of Peninsula feeder 5 ft. high, 30 ft. long, pointed them.

Washed 17 mile lock feeder 3 times.

Cleaned out feeder at Peninsula down to shale rock 75 ft. long, 2 ft. deep, 10 ft. to 15 ft. wide and piled back of feeder walls.

Grouted back of all the Hollow Quoins from 17 to Peninsula.

All of the foregoing work has been done between Cleveland and the Portage-Lock, and charged by monthly abstracts accounts to the Canal Improvement Fund that was made by the Legislature extending from Cleveland south.

Lock was unwatered with steam engine.

All locks cleaned from 4 to 16 (Akron).

Coping stone set back at Lock 1 (Akron).

Navarre lock was repaired with brick and cement cribings, torn down and rebuilt and debris removed.

Lower lock at Massillon, cribings were rebuilt and debris taken from bottom. Upper Massillon lock, cribings were rebuilt and debris cleaned from bottom.

Upper Massillon lock, cribings were rebuilt and debris cleaned from bottom.

Fulton lock repaired with bricks and cement, cribings rebuilt and debris cleaned from bottom.

Clinton Locks repaired with brick and cement, cribings rebuilt and debris cleaned from bottom.

Wold Creek Lock cribings rebuilt, blocks of timber used to fill in where stones have fallen out, debris cleaned from bottom.

LOCK GATES.

Fulton Lock, new fender plank on gates, one new balance beam on upper-gates.

Wolf Creek, new fender plank on lower gates.

A distance of 2½ miles between 14 and 17 mile locks was levelled off afterdredge.

Bank Bell Line Bridge to Mud Run Culvert was raised with gravel and cinders.

Banks around Summit Lake about § of way of Lake frontage raised withstone, broken sewer pipe, gravel and cinders.

Banks at Long Lake Channel between river and feeder bridges 3½ ft. high,. 25 ft. wide and 150 ft. long, gravel and cinders.

CANAL BANKS RAISED AND REPAIRED.

Navarre level tow-path raised 700 ft. long, 1 ft. deep. Massillon level tow-path raised 3000 ft. long, 1 ft. deep. Massillon level berm-bank raised 200 ft. long, 10 ft. high. Fulton level tow-path raised 4150 ft. long, 1 ft. high. Fulton level berm-bank raised 300 ft. long, 10 in. high. Wolf Creek level tow-path raised 1250 ft. long, 1 ft. high. Summit level south end tow-path raised 500 ft. long, 8 in. high. Culvert on Fulton level was cleaned of debris and wing wall repaired. Two culverts on Fulton level were cleaned of debris and wing wall repaired by placing old stone back in place.

Culvert on Wolf Creek level was cleaned of debris.

WASTE GATES.

New waste gates placed 1 mile north of Massillon, 12 ft. wide, 12 ft. wide. Concrete main walls were 24 ft. long, 12 ft. high. Thickness of main walls $3\frac{1}{2}$ ft. at bottom, $2\frac{1}{2}$ ft. thick on top.

Wing walls 16 ft. long, 12 ft. high, 2 ft. thick.

Conduit to river 24 ft. long, 12 ft. wide.

Waste gates at Trenton bridge repaired and 2 ratchet timbers and ratchets placed in position.

Waste gates at Cemetery bar new stone and ratchet.

New bridge at Lock 15 (Akron).

New bridge at Lock 16 (Akron).

DAMS.

Dam at Lock 21 (Akron) was cleaned of debris.

Dam at Tuscarawas was repaired.

Dam at Millport feeder was cleaned, new timbers put in, sheet piled and filled with gravel and backed up with gravel.

Dam at Fulton feeder repaired with 40 yards stone, 60 yards gravel, new timbers put in and sheet piled.

Dam at Clinton Creek was repaired with 75 yards of gravel and stone put

Dam at Wolf Creek level repaired with 80 yards of gravel and stone replaced.

DREDGING.

On Division No. 2 195 cubic yards hand dredged.

BARS REMOVED,

Bars removed at sand bridge 40 cubic yards. Bars removed at Campbell bridge 30 cubic yards.

Bars removed at Guard Lock 50 cubic yards.

Bars removed at Taylor St. 50 cubic yards.

Bars removed at Portage 25 cubic yards.

Bars at Warmington bridge taken out 3 times, 75 yards removed.

Bars south of Warmington bridge taken out 3 times, 80 yards removed.

Bars at Cemetery bar bridge taken out 4 times, washed through sluices into river, 4000 yards of gravel.

Bars on Massillon level removed by hand dredge as follows:

South of Fulton Lock 25 yards.

At Millport Feeder 36 yards.

At Bridgeport bridge 47 yards.

At Bridgeport waste weir 45 yards.

At Cherry St. bridge 36 yards.

At South St. bridge 28 yards.

At Russell's shops scraped and wheeled 3 times, 15 ft. long, 40 ft. wide, 2 ft. deep.

Bars on Fulton level by hand dredge as follows:

South of Clinton lower lock 32 yards.

At Clinton Creek 120 yards.

At Clinton Bridge 16 yards.

At Eulton Dridge 10 yards.

At Fulton Bridge 28 yards.

South of Fulton bridge 12 yards.

North of Fulton bridge 26 yards.

Bars on Wolf Creek level by hand dredge as follows:

At Wolf Creek Lock 24 yards.

At Nile bridge 18 yards.

North of Red bridge 19 yards.

At Red bridge 22 yards.

South of Red bridge 27 yards.

Halfway bridge 26 yards.

WEEDS AND BRUSH CUT.

Brush cut a distance of 2 miles on 8 mile level on berm bank.

Brush cut a distance of 2 miles on 8 mile level on tow-path.

Brush cut a distance of ½ mile on 14 mile level on tow-path.

Brush cut a distance of 2 miles on Long Pincry on berm bank.

Brush and weeds were cut from Lock 1 (Akron) to feeder, also around basin at Lock 1 (Akron).

Brush cut on tow-path on Navarre level.

Brush cut on tow-path on Massillon level.

Brush cut on tow-path on Fulton level.

Brush cut on tow-path on Wolf Creek level.

Brush cut on tow-path on Summit level.

GRASS CUT.

Grass cut twice from Wolf Creek Lock to feeder and once from feeder to Salt: Works, also in Portage Lakes and channels twice during summer.

Seventy-seven miles of grass cut on Division No. 3 from channels.

Twelve miles of grass cut on Division No. 3 from feeder.

FEEDERS.

Grass cut in channel entire length of Tuscarawas Feeder.

Millport Feeder bank was raised 400 ft., also 3 breaks filled, 25 ft. long, 7 ft. deep; 30 ft. long, 6 ft. deep; 22 ft. long, 5 ft. deep.

Fulton Feeder banks were raised 800 ft., bars wheeled out 3 times and break: filled, 50 ft. long, 8 ft. deep; 35 ft. long, 6 ft. deep; 30 ft. long, 7 ft. deep; 25 ft. long, 5 ft. deep; 20 ft. long, 8 ft. deep; 40 ft. long; $4\frac{1}{2}$ ft. deep; 45 ft. long, 6 ft. deep.

Mucker also repaired.

Furnace Run and Sand Run aqueducts were cleaned of debris twice during the year, rods replaced on Furnace aqueduct.

Wolf Creek aqueduct was cleaned of debris twice, also caulked with saw-dust and gravel.

MISCELLANEOUS.

Boated one car load of lumber from Massillon to Akron.

Took steam dredge and mucker to Salt Works.

Boated 16 mucker loads from dredge at Salt Works to tow-path.

Raised and relaid side-walk on State ground on Exchange St.

Took out spiles in Basin at Lock 1 (Akron).

Raised hand dredge at R. R. bridge.

Removed stone from guard lock.

Unloaded two boat loads of gravel at Lock 1.

Boated 120 loads of mud from bank put there by steam dredge.

Boated 6 loads of cinders for tow-path.

Boated 2 loads of broken sewer pipe for tow-path.

Boated 2 loads of brick and chuck for tow-path.

Boated 1 load of dirt for dam at Lock 1.

Boated 3 loads of dirt for dam at Mud Run.

Boated I load of sewer pipe at Mud Run Culvert.

Boated 4 lots of lumber and cement at Mud Run Culvert.

Raised 100 ft. of dock south of float bridge.

Rolled all stone out as far as we could reach back to tow-path for protection around Summit Lake tow-path.

Dug out old wooden culverts at Locks 4, 5. 9 and repiled after new ones were put in.

Took down derrick at Lock 11 and loaded into wagons.

Took down steam pump at Mud Run and took to Akron.

New valve house and foundation at East Reservoir.

Tore out old waste weir at Lock 1 and replaced with new concrete weir and bridge.

New concrete retaining wall from waste weir north to Lock 1 (Akron).

Helped to put in dam at Lock I also dams at Mud Run Culvert.

Put in dams at Locks 1, 2, 3, 7 and 8 Akron.

Put in flumes at Locks 2 and 8 Akron.

Filled breaks on Massillon level 65 ft. long, 12 ft. deep.

Filled breaks on Fulton level 60 ft. long, 10 ft. deep.

Put in new revetments under 3 bridges on Summit level.

Put in new revetments under 2 bridges on Massillon level.

Put in new revetments Fulton level 300 ft. long.

Put in new revetments Mile bridge on Wolf Creek level.

Boated 2 loads of gravel from Cemetery bar to Akron.

Boated 1 load of lumber from Dover to Barberton.

Boated 27 loads of dirt from steam dredge.

Took 7 trees out of canal.

Raised 3 sunken boats.

Took stone, etc., out of bottom of canal on following levels: Navarre, Massillon, Fulton, and Wolf Creek.

WORK DONE BY STEAM DREDGE.

On Massillon level, No. of yards none.

On Massillon level, raising tow-path 6455 ft.

On Fulton level, No. of yards from bars, 400.

On Fulton level, raising tow-path 6835 ft.

On Wolf Creek level, No. of yards from bars, 200.

On Wolf Creek level, raising tow-path 1110 ft.

On Summit level, No. of yards from bars, 4725.

On Summit level, raising tow-path 3690 ft.

Report of repairs needed on Ohio Canal from Lock No. 1, Akron to Navarre Lock.

Tow-path and berm banks riprapped on Summit Level.

New bridge at south end of Summit Lake in place of old floating bridge.

Towing path raised from Waterloo Bridge to Wolf Creek Lock.

Berm bank raised from Mud Run south, a distance of 600 ft.

New high water waste-weir south of Summit feeder.

One pair of waste-gates 100 ft. north of Wolf Creek Lock.

New walls and new gates at Wolf Creek Lock.

Banks raised on Wolf Creek Level.

New abutments under aqueduct on Wolf Creek level.

One new sluice south of Red Bridge on Wolf Creek level.

One new sluice north of Clinton Locks on Wolf Creek level.

Brush cut on tow-path and berm bank on Wolf Creek level.

New walls and new gates at Clinton Locks.

New bridge on Short level at Clinton Locks.

New change bridge at Clinton lower lock.

One new bridge at Clinton Creek dams.

New timber on concrete dam at Clinton Creek.

New walls and 4 new gates at Clinton guard lock.

Tow-path and berm banks raised on Fulton level.

Brush cut on both sides of canal on Fulton level.

Dredging from guard lock to Fulton Lock.

One new sluice 1 mile south of Clinton.

One new sluice 200 ft. north of Fulton Lock.

One new high water waste-weir 1 mile north of Fulton.

New walls and new gates at Fulton Lock.

New channel and tumble wall around Fulton Lock.

Tow-path and berm banks raised on Massillon level.

Brush cut on both sides of canal on Massillon level.

One new sluice at Millport on Massillon level.

One new high water weir at Butter bridge, Massillon level.

One new high water weir at Bridgeport, Massillon level.

Tow-path riprapped from Massillon to Willow Bank, Massillon level.

Dredging from Fulton Lock to Massillon Locks.

New revetment on tow-path under Main St. bridge, Massillon.

New gates and new miter sills at Massillon Locks.

Tow-path raised on Navarre level.

Brush cut on towing-path and berm side of canal.

New sluice at Cemetery Bar.

New retaining wall on berm side at Cemetery Bar, and aqueduct across top of canal from berm side to river.

New sluice & mile north of Navarre.

New walls and new gates at Navarre Lock.

New bridge at high water waste weir in Navarre.

Dredging from Massillon Lock to Navarre Lock.

FEEDERS.

Channel in Fulton feeder made wider and deeper.

Banks raised and made wider.

New waste weir in dam.

New trunk at outlet of Millport feeder.

Channel made deeper and wider.

New feed gate and waste gate at head of feeder.

I have given the above statement of repairs needed as it has been the Superintendent's usual custom, with the understanding that all of their needed improvements will be taken care of by the general improvement now under contemplation for the coming year by authority of a Special Improvement appropriation made for that purpose by the Seventy-seventh General Assembly.

I would respectfully recommend the buying new improved machinery for new dredge, constructing the hull by our own carpenters, they being boat builders. Knowing well it will be more serviceable and better built than by contract.

Summit level is nine miles long, three of which it is impossible to land dirt on either side, said level is never drawn, and dredge I believe could be better operated by Chief Engineer with better success than by contract.

In regard to the proposed new reservoir I consider it a necessity and should be constructed at once, as the leases for water rents are becoming so great that the present reservoir system will not furnish a sufficient supply, as in January 15, 1904, the supply of water in our present reservoir was entirely gone.

OFFICE OF THE SUPERINTENDENT OF REPAIRS.

Coshocton, Ohio.

MR. CHAS. E. PERKINS, Chief Engineer, Columbus, Ohio.

DEAR SIR:—I have the honor to submit to you herewith my eleventh annual report of repairs made and labor performed on the Second Sub-division of the Northern Division of the Ohio Canal, during the fiscal year ending November 15th, 1906.

This sub-division includes the following portions of the Ohio Canal from Navarre on the north to the outlet lock on the Muskingum River at Dresden on the south, a distance of 81 miles; the Walhonding feeder from Roscoe to dam on Walhonding River, a distance of six miles; the Trenton feeder, three miles in length and Sugar Creek, three miles in length, making in all 93 miles.

L. P. Wilson, Foreman of Repair Boat No. 1. Newcomertown, Ohio, 21 years service.

A. L. Norman, Foreman of Repair Boat No. 2, Roscoe, Ohio, 6 years service.

There are on this sub-division 2 repair boats; one boarding boat, one steam dredge, one steam pump, one first-class derrick complete, four wheel scrapers and four hours. We also have numerous tools, and appliances, an inventory of which has been sent to you on a separate blank by the foreman of the several sections.

AOUEDUCTS.

There are four aqueducts on this sub-division: Bolivar aqueducts, 3 spans, total length 170 feet. Orange aqueduct, 1 span, total length 30 feet. Roscoe aqueduct, 5 spans, total length 310 feet. Dresden aqueduct, 3 spans, total length 140 feet.

CULVERTS.

There are 37 culverts on the sub-division of which the following are in good condition:

One at Coalport on Roscoe level.

One at Lewisville on Lewisville level.

Two " on White Eyes level.
One " on Newcomerstown level.
One " or Lock Seventeen level.
One " on Lock Port level.

The above are all large culverts having 10 feet arch. The remainder are 4 feet and 5 feet arch and are either submerged or in very bad condition.

DAMS.

There are four dams:

One at Zoar on Tuscarawas River.

One near Trenton on Tuscarawas River.

One six miles west of Roscoe on Walhonding River.

One at Dover on Sugar Creek.

LOCKS.

There are 28 lift locks with an average lift of 8 feet and 4 guard locks making in all 32:

I am pleased to be able to state that, while we had a great amount of rain during the season, delaying our work to some extent, there were no serious floods and no damage done with the exception of 250 lineal feet of towing path a mile south of Trenton which was damaged to such an extent, by an ice gorge which formed in the river at that point, that it required 200 piling from 20 to 23 feet in length, and 400 cu. yds. of stone to repair and protect it. The stone used were taken from the lower lock now being built at Trenton (No. 16). Also a few small breaks.

A great source of annoyance to us during the entire year, and which was never experienced by us before, was the scarcity of laborers. It was impossible to get as many as we needed, a part of the time the Foremen having only two or three men when they should have had from six to ten to do the necessary work, and think it probable that foreign labor will have to be used next year.

A matter to which I wish to call your attention is that I have only two Foremen to look after 81 miles of main Canal and 12 miles of feeders, making in all 46 miles for each Foreman, which is entirely too much for one Foreman and crew to look after and keep in proper repair. I therefore recommend that there be another Repair Boat built and another Foreman appointed for the coming year. We should also have a Dredge, as the lower portion of my division from Newcomerstown south has become very shallow and should be dredged at once. Of course we remove the bars from time to time, but the entire Canal is gradually filling up, not having been dredged out for a number of years. The old dredge was taken to Akron three years ago.

The only new structures on my division are the out-let lock at Dresden connecting the Canal with the Muskingum River at that point. The work was done by contract by Clifton Bros., of Zanesville, Ohio. And lock No. 16, at Trenton which is now nearly completed. The above mentioned improvements were done under an act and paid for by an appropriation made by the last General Assembly for the improvement of the Ohio and Eric Canal between Dresden and Cleveland.

REPAIRS MADE.

Aqueducts.

The hooding of both chords of Bolivar aqueduct was repaired. The floor of Orange aqueduct was respiked and the sides lined up. Dresden aqueduct received new plank in trunk and new top strips.

The Roscoe aqueduct which is the largest between Dresden and Cleveland is in a very dangerous condition and liable to collapses at any moment. No repairs were made on it as it would be very impracticable to waste money on the old structure, and would recommend that a new one be built the coming season.

BANKS RAISED.

Ten mile level south of Navarre335 x 10 x 1	3,350 cu. ft.
Six mile level south of Zoar340 x 10 x 1	3,400 cu. ft.
Two mile level north of Dover480 x 10 x 1	4,800 cu. ft.
Dover level	6,830 cu. ft.
Lock Port level	2,650 cu. ft.
Total number of cu. yds. on Wilson's Division	778 cu. yds.
Two mile level south of Newcomerstown	240 cu. yds.
Berm bank of Roscoe basin	80 cu. yds.
Towing path, Roscoe basin	60 cu. yds.
Towing path at Norris' bridge near Dresden	60 cu. yds.
Berm bank at Norris' bridge near Dresden	30 cu. vds.

On Walhonding feeder near Clark's bridge	-
Grand total	1,648 cu. yds.
BARS REMOVED WITH SCRAPERS.	
On ten mile level near Navarre flood gates 40 x 1 x 20	800 L. ft.
On six mile level near Barkheimers run	
On six mile level near Hardwidges chutes315 x 2 x 20	
On six mile level near Lock No. 11	
On two mile level below Lock No. 1	
On two mile level north of Schillings bank	
On two mile level at Schillings bank	
On two mile level near waste weir	
On Sugar Creek level near Lock No. 12	
On Lock Port level near mile bridge	
On Upper Trenton level near Simons run	
On Lower Trenton level near Nevings run	
On Port Wash, level near Port Washington	
On Glascow level	
Wilsons Div. Grand Total, 74,480 cu. ft. or	\$2,758 cu. yds.
Norman's Division. Bars continued.	
On two mile level near Suddams lock sluiced 3 times	150 cu. yds.
On Orange level near Orange	30 cu. yds.
On Blue Hole level at Flint run scraped out 3 times	250 cu. yds.
On Blue Hole level at Turkey lock scraped out 4 times	160 cu. yds.
On Lewisville level near Lewisville wheeled out	
On ten mile level at Roscoe wheeled out	
On ten mile level at Hack's farm wheeled out 2 bars	60 cu. yds.
On ten mile level at Doles run	50 cu. yds.
On ten mile level at Coal Port, 2 bars	120 cu. yds.
On ten mile level at Conesville scraped out	650 cu. yds.
On Dresden level at Adams' Mills scraped out	200 cu. yds.
On Dresden level at Norris bridge scraped out	
On Dresden level at Dresden, 3 bars	150 cu. yds.
On Walhonding feeder at Dorsey's run	
On Walhonding feeder at guard lock	150 cu. yds.
Total	9.210 au aida
Total Wilson's Division	-
Wilson's & Norman's Division	5,068 cu. yds.
BREAKS REPAIRED.	
On Sugar Creek level six breaks averaging 50 x 6 x 20	3,600 cu. ft.
On Dover level near B. & O. bridge	
On Dover level near B. & O. Bridge	
On Trenton feeder	
On Dresden level near Norris bridge	•
Total	22,600 cu. ft.

BRUSH CUT.

Brush and weeds on 35 miles of berm bank on Wilson's division were cut, and on 25 miles of towing path, also trees were trimmed.

On Norman's division brush and weeds were cut on 33 miles of towing path, and on 11 miles of berm bank and trees trimmed.

The towing path on Walhonding feeder was moved twice and the berm bank $2\frac{1}{2}$ miles was cleared of trees and brush.

CULVERTS.

McGuire's culvert was repaired with cement and brick.

All culverts on the division were cleaned several times.

The big arch culvert at Haights on Walhonding feeder which had become almost submerged, was cleaned out and to drain it, required a ditch 100 ft. long . n. 6 feet deep.

DAMS

The drift was removed from Zoar dam and stone relayed 200 ft. and regraveled twice during the season.

Sugar creek dam was re-graveled and a 6×6 strip run the entire length of sheeting.

The wooden crib at south end of Walhonding dam was re-filled with rip rap stone requiring 75 cu. yds. and the earth wing south of crib was repaired with 84 yds. of rip rap stone and the protection wall 310 feet long was relaid. The drift was removed a number of times during the year.

DREDGING.

There was no dredging done on this division because we have no dredge, and all the cleaning we can do has to be done with wheelbarrows and scrapers.

LOCKS.

Zoar lock No. 9 — Mitre-sills repaired and heel posts on both gates were spliced.

Lcck No. 10 — Mitre-sills bolted down and floor partly re-sheeted.

Lock No. 15 - One new balance beam and snubbing post.

Lock No. 16-2 pairs of new gates, complete.

Lock No. 17 - Both chamber walls dressed off, set back and pointed.

Lock No. 18 — Both chamber walls dressed off, set back and pointed.

Lock No. 20 — One pair new gates, snubbing post and walls set back.

Lock No. 21 — Cleaned of mud and one snubbing post.

Lock No. 22 — One new balance beam.

Lock No. 23 - One new balance beam.

Lock No. 24 — Cleaned of mud and repaired with 250 brick and 9 sacks cement.

Lock No. 26 - One new balance beam.

·Lock No. 27 — One new balance beam and 1 pair new gates.

Locks 28, 29 and 30 — We cleaned of mud and silt.

The two outlet locks at Dresden were repaired with new floors, using 10,000 feet of lumber 20 yards of concrete and 8 pilasters were built of cement, one on each wing of each lock making 64 cu. yds.

SLUICE WAYS.

Turkey Lock sluice way was repaired with 500 paving brick and 2 bbls. cement.

Adams Mills repaired with 400 ft. of 6 x 12 oak lumber.

WASTE WEIRS.

The two waste weirs on ten mile level south of Navarre were repaired with 45 yards of rip rap stone.

Sterlings, on Dover level, repaired with 2 boat loads of slag.

Sugar creek, stone relaid and graveled 265 feet.

Lock 17 level, stone relaid.

Port Washington level, stone relaid and graveled.

Glascow level, stone relaid.

Newcomerstown level, stone relaid.

Owing to the scarcity of labor and the need of the stone for protecting the embankment and to open up navigation as soon as possible I had Foreman Wilson and Norman assist Mr. Kissner 20 days in his work on the lock at Trenton for which labor he is to pay the State in full in his final settlement.

White Eyes, ends concreted and re-graveled.

New Adams' Mills, cut down and repaired with stone.

The tumble wall of Lock 15 was repaired with 300 bricks and grouted with cement.

STONE PROTECTIONS AND PILING.

400 cu. yds. of stone were placed and 200 piling driven to protect the towing path from the encroachment of the river one mile south of Trenton.

The embankment at the north side of the lower basing at Roscoe was protected with 200 cu. yds. of stone, and the towing path on the east side of same basin was protected with 20 yds. of stone.

REPAIRS NEEDED.

WASTE WEIRS.

Two waste weirs on ten mile level south of Navarre should be rebuilt with concrete, also one on two mile level near Zoar, and one on six mile level south of Zoar.

The tumble wall at Locks Nos. 8, 12, 13, 15, and 17 should be rebuilt as they are in very bad condition.

DAMS.

The dam at Zoar and one near Trenton, two of the most important dams on the Division are in extremely bad condition and I would recommend that they be rebuilt early in the coming season.

SLUICE OR FLOOD GATES.

There should be two sluice ways put in on six mile level south of Zoar, one on two mile level between Zoar and Dover, one on lower Trenton level near Negro Basin, two on Emerson's level at Blue Hole and Flint Run, one on Lewisville level near McGuires, two on ten mile level, one at Roscoe and one at Conesville.

LOCK WALLS AND GATES.

Locks 8, 9, 13, 15, 17, 18, 20 and 23 should be rebuilt. Locks 8, 14, 17, 18, 19 and 20 should have 1 pair balance beams each. The three Walhonding locks at Roscoe should have 1 pair of new gates each.

CULVERTS.

At Beasles. Should be rebuilt about 14 feet.

Oné six mile level near Zoar Middle Run, about 30 feet of lower end should be rebuilt.

At Stone Creek. Two-thirds of it in very bad condition.

Oldtown. Should be rebuilt.

Goshen. The east end should be rebuilt about 30 feet.

On Dresden level near Norris bridge. In very bad condition and should be rebuilt.

MISCELLANEOUS.

On account of not having a suitable place to keep our tools on the northern part of the division and to house the State Team when working in that vicinity, we erected a building 16 x 32, lumber costing \$150.00 and labor performed by one carpenter and our Foreman. Total cost about \$275.00.

One new coal dock was built at Ninneveh for Hill Bros. Several sunken boats were raised and other miscellaneous repairs made.

The repair boats were out from April 5 to November 5. The working days were 183.

Taking into consideration the condition of our dams, etc., an excellent stage of water has been maintained throughout the season and no complaints have been made. On account of navigation being closed between Akron and Cleveland owing to improvement of the Canal, and the coal strike early in the season, there has been very little boating done, only two mines with four boats and one grain boat running the season.

In my report of last year I mentioned having contracted for 600 cu. yds. of rip rap stone to be delivered on the banks of the Walhonding feeder to complete the protection of the Walhonding embankment, but owing to the scarcity of teams and labor the man with whom the contract was made could furnish only 100 cu. yds. leaving 500 cu. yds. to be carried over till next season.

Again I will state that every effort has been made by me to economize and keep the expense of that part of the Canal under my control within the appropriation allowed, and to this end I shall labor while I have the honor to manage and control any part of the Ohio Canals.

Thanking you for the kind and courteous treatment accorded me in the past and for all favors shown me in the discharge of my official duties, I bring my report to a close.

Very respectfully submitted,,

C. H. GEIDEL, Superintendent.

OFFICE OF SUPERINTENDENT OF REPAIRS.

Portsмouth, Оню, Nov. 16, 1906.

CHAS. E. PERKINS, Chief Engineer of Board of Public Works, Columbus, Ohio.

DEAR SIR: — I have the honor to submit the Annual Report of repairs made on Sub-Divisions No. 3 and 4, Grand Division, No. 2, Ohio and Erie Canal for the fiscal year ending November 15th, 1906.

Sub-Division No. 3 extends from Dresden side cut to Lockbourne including the Licking Reservoir and Kirkersville Feeder, a total distance of Seventy-three miles. Sub-Division No. 4 extends from Lockbourne to Portsmouth, a distance of eighty-nine and three-fourth miles, including the Columbus Feeder, eleven miles in length, making a total length of one hundred and three-fourths miles.

FOREMEN

S. M. Brown, nine years service, Newark, Ohio.
Alex Richardson, twenty-six years service, Carroll, Ohio.
W. H. Kirkendall, twenty years service, Circleville, Ohio.
C. W. Watkins, six years service, Waverly, Ohio.

PROPERTY AND TOOLS,

There are four repair boats, one steam pump, one pile driver and portable engine to operate the same, two flat boats, one 30 ft. long by 12 ft. wide, the other 22 ft. long by 6 ft. wide, and 20 in. deep with two sets of oars, the latter boat to be used repairing the banks of the Buckeye Lake. Four horses and harness for same. Two-horse wagons, one-horse wagon and harness. Two top buggies and other tools and appliances, a return of which has been furnished the office at Columbus.

AQUEDUCTS.

The Lake run aqueduct was repaired with one new brace timber on north end of berme bank side. The aqueduct north of Carroll over Walnut Creek was repaired with new floor timbers, posts and new plank. Also a string of sheet piling was driven 68 ft. long and 12 ft. in depth. Earth work dug out and refilled. Circleville aqueduct was repaired with some new floor timbers and plank for siding. Rebuilt three spans of the Yellow Bud Aqueduct complete. Rebuilt the Deer Creek Aqueduct except one-half span, and raised the entire aqueduct 8 inches from end to end and put in two new hanging beams in the ½ span that was left. Put in bulk head at Paint Creek Aqueduct. One new span at Stony Creek was rebuilt complete, and the remainder of aqueduct was repaired in the way of flooring and siding, and one pair of new truss braces and posts. Repaired Waverly Aqueduct with 20 new posts and 60 ft. of new cap or cord, 60 ft. of siding and several braces.

LOCKS.

The South lock north of Baltimore had some extensive repairs by digging out the earth from behind the walls and refilling the same. Put in two bulk heads of 3 in. oak timber and 70 ft. of a line of sheet piling of 2 in. oak was driven and refilled with earth. Baltimore Lock at Paper Mill where the gates gave way was replaced with new bulk head and all the earth work around the lock was refilled. Lockville Guard Lock at Walnut Creek was repaired with new bulk head and refilled with earth. Canal Winchester Lock received new bulk head and refilled behind the walls with earth.

Tumble way dug out the length of 90 ft. Carroll Lock received new bulk head and earth dug out from behind the walls and refilled. The earth work around the Groveport Lock was repaired and paddles recleated. Lockbourne Lock was repaired by refilling of earth behind the walls. Paddles recleated and stems overhauled. The 18 mile lock at Marfield's Mill was repaired by jacking back the walls, new concrete work under the floor behind and in front of the gates and new floor. The 4th and 5th street locks at Chillicothe were both cleaned out twice. Vesters, Lunbecks, Upper Middle and Lower 3 locks, Higbys Guard Lock, Waverly Upper, P. P. Lower and Jasper Guard Locks were all cleaned out several times

LOCK GATES.

Put in 3 new gates complete in the 18 Mile Lock at Marfield's Mill upper lock. Two new gates were put in complete at 5th Street lock in Chillicothe and one gate set in same lock and one at P. P.

CULVERTS.

The double culvert at Rample Creek was repaired by replacing new timbers which washed away and refilled with stone, gravel and cement. The 3 mile culvert north of Circleville was cleaned out four times. Culvert on 6 mile level north of Carroll was cleaned out three times. All of the culverts between Chillicothe and Waverly were cleaned out two times and Dry Run culvert was cleaned of all debris and gravel scraped out.

DAMS

Put in new abutment with concrete at Kirkersville dam. Tore out old cribing and refilled the new concrete work with gravel. Rip Rap laid up with cement and gravel for a protection wall. Lockville Dam was repaired with earth, stone and gravel. Millport Dam was repaired about 60 ft. in length on top with new timber, brush, stone and gravel, and stripped the entire dam.

The Tomlinson Dam was not repaired on account too much water, but stone and timber is bought and on the ground which will be in next annual report.

Banks raised and repaired.

Refilled a break in bank at Cochrains culvert on 9 Mile level 35 ft. long, 12 ft. deep. North of Carroll on 6 Mile level where the Flumes were washed out by high water. A fill was made 65 ft. long, 40 ft. base, and 18 ft. deep and the banks along the same level were dug out and raised in several places. The 4 Mile level at Canal Winchester was repaired by raising it in several places. Two Mile level south of Canal Winchester locks: There were several bad leaks dug out and refilled. On 6 Mile level south of Groveport the banks were repaired at different places. The levees at Lockbourne that were washed away by high water was replaced. One levee was 65 ft. long and 8 ft. deep, another was 45 ft. in length and 8 ft. deep and the other about 300 ft. long and 2 ft. deep, and on short level a fill of 100 ft. was made on the Towpath side.

Put in fills on 2 Mile level below Circleville on Berme and Towing path-600 ft. long. Restored bank at 2 Mile locks 180 ft. long. Put in break at Westfall Wasteway with brush, stone and earth 80 ft. long and 18 ft. deep. Put in break below Yellow Bud 100 ft. long, 15 ft. deep and repaired break on Circlevillelevel. The bank above Omega was dug out to stop leak and bank raised.

BARS.

Removed three bars on Circleville level. Took out bar below 2 Mile lock, 250 ft. long, 4 ft. deep, full width of canal. Moved all the bars from 2

6 B. OF P. W.

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Mile lock to the 18 Mile lock at Marfield's Mill. The school house bar 800 ft. long. Overly Bar 200 ft. long and several other bars were taken out which would aggregate 500 ft. in length. Took out 2 bars above 3 Locks, and 3 below locks. Took out 6 bars between Stoney Creek and Waverly and 2 bars on 2 Mile level below Waverly, 5 on the Jasper level, making a total length of 700 ft.

BRIDGES.

Built new towing bridges at Yellow Bud Aqueduct complete and one new towing bridge at Deer Creek, Aqueduct. Put in new bridge at Circleville Dam across feeder. Also one new towing bridge across Stony Creek.

BRUSH AND WEEDS CUT.

Mowed banks of Canal both two miles and Berme bank in City of Newark, North Fork Aqueduct west to Lockport a distance of one mile. Lockport and Fair Grounds level, Tow and Berme bank a distance of two miles. From Fair Ground to Taylor's Lock, the Tow and Berme banks were moved a distance of two miles. On the 9 Mile level from Taylors Lock to Hebron the towing path was moved a distance of five miles. On 6 Mile level north of Carroll the banks were moved and cleaned of brush and weeds. The same was done at Canal Winchester and Groveport making a total distance of nine miles. Cut the brush and weeds on the Circleville level, also cut brush and weeds from Yellow Bud to 18 Mile Lock, a distance of twelve miles. The brush and weeds were cut through Chillicothe and Waverly, also from 2 Mile above Omega and from Omega to P. P. Lock, a distance of 9 miles.

GRASS CUT FROM CHANNEL OF CANAL.

Cut grass in City of Newark four times a distance of one mile, which is equat to 4 miles. Fair Ground Level was cut once, one mile. Nine Mile Level from Taylor's Lock to Hebron, 5 miles. Nine Mile Level from Taylor's Lock to Franklin Bridge, 4 miles. Nine Mile Level from Taylor's Bridge to Franklin Bridge, 1½ miles. Nine Mile Level from Crouse Bridge to Taylor's Bridge, 1½ miles. Nine Mile Level from Edwards Bridge to Franklin Bridge, 1 mile. Total, 18 miles.

This 18 miles of grass was taken out of Canal with forks and hook. On 6 Mile Level north of Carroll and 2 Mile Level south of Canal Winchester and south of Groveport 6 miles of channel grass was cut and taken out.

WASTE AND FEED GATES.

The waste gates at Buckeye Lake were recaulked. South of Carroll on 2 Mile Level the waste gates were repaired with new lumber. The Circleville and Tomlinson Dam Feeder gates were put in new complete. Below Waverly on 2 Mile Level the waste gates were repaired with new lumber, earth dug out and refilled under sill and puddled.

FEEDERS.

The Circleville and Tomlinson Dam feeders received new bulkheads complete. The brace timbers were let in stone walls and cemented. The walls were repaired with brick and cement mortar. The Millport Feeder was cleaned of all debris, as we cleared the other feeders also.

MISCELLANEOUS.

The repairs on Buckeye Lake are as follows by hauling or boating and relaying stone on north bank. Putting in new channel, stakes and buoys and

20 piling. Moved north bank and cut brush from Park to Sellers Point. Graded and graveled a portion of bank between Park to waste gates. Then on south side of Lake a public landing was built new complete with 26 piling driven from 6 to 25 ft. long. The pier or landing was 108 ft. long braced with 2 in. oak plank. Floored with 2 in. oak 8 ft. long. The Flumes at north lock were widened to 60 ft. The stone wall was reset and earth was used to fill in low places of bank and behind walls of North Lock and puddled. Rip Rap wall was placed from flume toward North Lock. A new foot bridge was placed over North Lock 18 ft. long and 5 ft. wide. A fill was made at Lockbourne on or near Geo. Foard's farm for protection. Also a fill was made across-Columbus feeder for protection of farmers at or near Moreheads place.

Putting in concrete tumble way complete below Circleville at Lower Lock on 2 Mile Level. Calking Circleville Aqueduct, cleaning out for paddles and resetting paddles and overhauling paddle stems in locks on 2 Mile Level. Also calking the Yellow Bud and Deer Creek Aqueduct by hauling or boating gravel and cinder. The Stony Creek, Paint Creek and Waverly Aqueducts were calked with gravel. The paddles of locks were cleared from Chillicothe to Waverly. The Guard Lock at Higby's was cleared of all silt and debris. Dug out wings of aqueducts at Omega, Waverly, P. P. and Sunfish Aqueducts, and refilled witn earth, stone and gravel. There were leaks in banks, dug out, refilled and puddled at Higby's, Omega, Corwins, Deacons and Ghost Orchard Basin. Cleaned out channel from 3 locks to above Chillicothe. Boating stone and gravel for Stony Creek Aqueducts, also Wheeling stone off of bar in the river for the same. Hauling timber for Stony Creek and Waverly Aqueducts. Calking State Boat No. 2, taking drift and trees out of Canal and putting hog chain on hanger on Omega Aqueduct. Putting in head gate at Dry Dock at Waverly. Since last Annual Report the State has suffered a loss of one repair boat. One dredge and boarding boat for same during the fire at Waverly when The Summitt Mills burned. The iron that was left was removed to a place of safety. This miscellaneous part of report includes looking after Canal in times of heavy rains drawing water to prevent over-flow of banks and putting in 7 catch basins from 3 locks to Fosters below Higbys. On 6 Mile Level there were 8 fills made, caused by muskrat holes, to protect the lands of farmers.

REPAIRS NEEDED.

I do hereby further report to you that the following repairs are needed upon said Sub-Division No. 3 and 4, Grand Division No. 2.

ON AQUEDUCTS.

All the aqueducts on Sub-Division No. 3 and 4 are needing repairs except those that have been rebuilt the last four years, and as white oak timber is almost impossible to get in desired lengths at a reasonable price, I recommend that steel structures be put in place of white oak timbers. The durability of a steel aqueduct will more than pay for the extra cost you would pay between the steel and white oak timber. New aqueducts are needed at Vickers one mile west of Frazeysburg and over North Fork of Licking. The aqueduct over Racoon Creek needs extensive repairs in the way of top cords, truss braces, bottom cords, the entire structure is in a bad condition. The aqueducts over the South Fork of Licking Creek and the aqueduct north of Carroll on 6 Mile Level are needing extensive repairing. Since the last Annual Report the middle span of Paint Creek Aqueduct has gone out, and the contract is let for a steel span to be placed by the first of the year. Camp Creek, Bear Creek and the Sunfish Aqueducts need to be rebuilt. The aqueducts across Brush Creek at Rushtown is in a splendid condition but is needing new floors and siding.

LOCKS.

All the locks from Newark to Buckeye Lake need repairing in the way of reflooring, new mitre sills and new tumble ways. From Buckeye Lake to Lockbourne there are 27 lift locks and three guard locks which all their walls need repairing with brick, stone or concrete, new mitres and reflooring. The locks on Columbus feeder. The lift and guard locks at Millport need repairing with new flooring, mitres and walls repaired with concrete, brick or stone with cement mortar, all the locks on this Sub-Division No. 4 need repairs as above stated from Chillicothe to the Elbow Lock, the third lock this side of the entrance lock into the Ohio River.

LOCK GATES.

The following locks need new gates: Vickers, Nashport, Newark, Taylors, North and South Locks at Buckeye Lake, Baltimore, Carroll, Lockville, Guard and 4 Mile Locks on Columbus feeder, Millport, Circleville and all the locks from Chillicothe to the outlet locks into the Ohio River.

CULVERTS.

As the drainage of the lands along the Canal lands is increasing nearly all of the culverts need enlarging and extensive repairing.

DAMS.

The following dams need rebuilding, to-wit: Blackhand, the head gate at North Fork feeder, at Basil and Paw Paw Creek, at Baltimore. The Circleville and Tomlinson needs new sheeting on both aprons and the cribs filled with stone and gravel.

BANKS RAISED.

The banks from Dresden to Newark and from Newark to Lockbourne need to be strengthened and raised in several places. The banks on Columbus feeder needs to be restored in many places, from Lockbourne throughout the Sub-Division No. 4 the banks need raising which could be done by dredging.

BARS REMOVED.

There are some heavy bars throughout Sub-division 3 and 4 to be removed and where the canal is dry this work could be done with scraper at a normal cost, and where the water is in the channel I recommend the work to be executed by dredging.

BRIDGES

Towing bridge at Licking Lock, Lockville, and north of Carroll are needed A new towing bridge at Paint Creek the length of span that went out is needed and remainder of bridge needs repairing, and if the aqueducts throughout Subdivision No. 4 are restored new tow bridges will be needed.

BRUSH AND WEEDS CUT.

Brush and weeds should be cut and burned throughout Sub-division 3 and 4 each year.

GRASS CUT IN CHANNEL.

The channels are in good condition from Newark to Buckeye Lake as the channel grass was cut and taken out as late as the first of September, but from Buckeye Lake to Groveport there is 15 miles of channel grass needs cutting. From Omega to Waverly the channel grass needs cutting.

DREDGE AND DREDGING.

Before asking for the needed dredging on Sub-divisions 3 and 4 we need an improved dredge which could be used very profitably. The Canal needs dredging out in many places from Dresden to the Ohio River. Then a dredge would be of great service in dredging channels on Buckeye Lake.

. WASTE AND FEED GATES.

Waste gates are needed at Nashport, Newark, Basil and Paw Paw feeders. Also waste gates are needed above Park at Chillicothe and below Waverly on short level.

FEEDERS.

The feeders at Baltimore could be restored at a small cost. The North Fork feeder needs to be opened at head gates and dredged to Newark. The Columbus feder needs restoring by dredging. The Circleville and Tomlinson Dam feeders are in excellent condition as they have been just repaired in the last year.

MISCELLANEOUS.

There are several places throughout Sub-divisions 3 and 4, Grand Division No. 2 needing catch basins where drainage is let into Canal channel. As the stumps on Buckeye Lake are hindering the navigation, and there has been spent already a considerable amount of money to rid the lake of stumps, I recommend a sub-marine saw where the stumps could be sawed off close to bottom of Lake and taken out with less expense than a mere attempt and not anything accomplished. As Buckeye Lake is becoming every year more and more a pleasure resort it is necessary that the question of ridding the Lake of stumps or whatever hinders navigation have a serious consideration.

The Lock House at Circleville, 3 Locks and Higby's are needing repairs in the way of foundations, reroofing and new windows. All of the repair boats are needing extensive repairing, also the tool houses are needing new roofs.

In conclusion I earnestly extend my heartfelt thanks for the kindness and courtesy you have shown me when receiving instructions and advisement from you in the discharge of my duties.

Respectfully submitted,

HARRY R. MORRIS, Superintendent of Repairs.

FINANCIAL STATEMENT DURING THE FISCAL YEAR ENDING NOV. 15, 1906.

Canal Repairs. Paid Through Regular Appropriation.

1005

1905			
Dec.	12.	Abstract	 \$707 76
1906.			
Jan.	9.	Abstract	 1,152 49
Feb.	13.	Abstract	 896 73
Mar.	13.	Abstract	 831 23
April	10.	Abstract	 883 01
May	8.	Abstract	 2,636 08
June	12 .	Abstract	 4,047 23
July	10.	Abstract	 3,799 72
			 2,550 75
Sept.	14.	Abstract	 2,187 40

ANNUAL REPORT

Oct. 9. Nov. 13.	Abstract	1,072 985	
Tota	ıl	\$21,750	02
	Deficiency. Building Embankment at Lockbourne.		
1905.			
Dec. 12. 1906.	Abstract	\$878	71
Feb. 13.	Abstract	21	29
Tota	d	\$900	00
1000	Buckeye Lake.		
1906.			
Feb. 13.	Amount of Abstract	\$37	75
Mar. 13.	Amount of Abstract	60	93
May 8.	Amount of Abstract	51	75
June 12.	Amount of Abstract	355	26
Sept. 13.	Amount of Abstract	239	26
Nov. 13.	Amount of Abstract	418	74
Tota	ıl	\$1,163	69
Amount	Paid Through Regular Appropriation	\$21,750	02
	Paid Through Deficiency	900	0₩
	Paid Buckeye Lake	1,163	69
Gra	nd Total	\$23,813	71

OFFICE OF SUPERINTENDENT OF REPAIRS.

CINNCINNATI, OHIO, December 17, 1906.

HON. CHAS. E. PERKINS, State Engineer, Columbus, Ohio.

DEAR SIR:—I herewith submit to you my Annual Report of Repairs made on Sub-Division No. 1, Grand Division No. 3, Miami and Erie Canal, during the fiscal year ending November 15, 1906.

CHAS. COOPER,

Superintendent of Repairs, Reading, Ohio.

This Subdivision extends from Cincinnati to the lower lock at Carrollton, a distance of fifty-seven miles.

FOREMEN.

R. V. Denny, foreman of carpenters, Middletown, Ohio, length of service forty-five years.

Fred Blerseh, foreman of State repair boat No. 1, Cincinnati, Ohio, length of service, four years.

Henry F. Eyler, foreman of State repair boat No. 2, Cincinnati, Ohio, length of service, nine years.

William Sheedy, foreman of Dredge No. 6, Franklin, Ohio, length of service, twenty-four years.

PROPERTY.

There are on this subdivision two State Repair boats, one steam dredge and boarding boat that accompanies dredge, four mules and numerous tools and appliances, in accordance with semi-annual report made.

LOCKS.

Built new upper and lower gates for Middletown lock, refloored and concreted in between timbers of same lock, also built mitre sills for same lock, built dams at upper and lower end of Middletown Lock and pumped water out, after new lock was built dams were removed. The mud and debris was removed from the front of the upper jaws and lower gates of the four locks at Lockland four times. Crescentville, Hamilton, Excello, Dines and Miamisburg. Locks were cleaned once the past season.

CANAL BANKS.

The low banks on the twelve mile level and on the six and eight mile levels below Hamilton and on the level between Miamisburg and Sunfish lock were raised, also the canal banks where the break occurred at Ross Lake and on six mile level above Lockland where the break occurred were strengthened.

CULVERTS.

The culvert at Hickenlooper farm was repaired and cleaned. The culvert above Sunfish aqueduct and the abutments were repaired and pointed up with Portland Cement. The culvert above Port Union was cleaned free of debris.

WASTE WEIR AND TUMBLES.

The waste weir at Dwyers, the waste weir at Port Union and the waste weir above Rockdale were each repaired, built one hundred feet new waste way below Crescentville, built seventy feet new waste way below Rialto.

WASTE GATES.

New waste gates and new floor and frame-work were built at West Carrollton, repaired waste gates at Crescentville, Dwyers, Cincinnati and opposite Spring Grove Cemetery.

TOWING BOATS.

New floor was built across Mitchel Ave. aqueduct, towing bridge at State's house was repaired, towing bridge at Crescentville was repaired.

FOOT BRIDGE.

New foot bridges were built at the following places, to-wit: — Across the lower lock at Lockland and upper Hamilton lock, and Tangeman's Crescentville and Excello were repaired.

DAMS.

The abutment at the right bank of the Miami River of the State dam was repaired. The upper shething of that dam was repaired. There was dredged from the canal on this subdivision during the past season approximately 18,000 cubic yards of earthly sediment.

WEEDS AND BRUSH CUT.

The weeds and brush were cut from the banks of the canal between Cincinnati and Sunfish lock twice during the past season.

FEED GATES.

The feed gates at Dines received repairs during the past season.

DREDGES AND REPAIR BOATS.

There was numerous repairs made on Dredges No. 4 and 6. The State boarding boat that accompanies the dredge has received needed repairs and State repair boats No. 1 and 2 have received needed repairs. State repair boat No. 2 is in such a condition that it should be replaced by a new boat.

AQUEDUCTS.

Repaired Crescentville Aqueduct, repaired Miamisburg Aqueduct, pointed up abutment walls with Portland cement and laid a twelve inch concrete floor under the aqueduct to protect abutment walls, repaired Amanda Aqueduct with new floor and twenty-four twelve-inch "I" beams also repaired sides of same.

SLUICE GATES.

Repaired sluice gates above Rockdale and on Greenland level.

BREAKS REPAIRED.

Repaired break at Hickenlooper farm above Lockland, repaired break at Middletown sewer, two small breaks at Cumminsville were repaired, three breaks on eight mile level below Hamilton were repaired.

BARS.

The bars on six and twelve mile levels were removed with Dredge No. 6.

CATCH BASINS.

Repaired catch basins on twelve mile, Franklin and Greenland levels.

MISCELLANEOUS MATTERS.

Repairs were made on Canal Collector's office at Cincinnati, and Canal Collector's office at Middletown. Debris was removed from the canal at Cheap-side in Cincinnati between Court Street and Broadway taking three hundred and eighty wagon loads of rubbish from canal. Stone was placed around the tubs of Carthage Aqueduct. Gravel and cinders were hauled to repair towing path on twelve mile level, leaks were repaired at Mitchel Avenue Aqueduct and at Kloper's Bend, Queen City Avenue and Niger Hill on twelve mile level, repaired seven leaks on six and eight mile levels. New snubbing posts were placed in position where needed on this subdivision, repaired leak at south abutment at Carthage Aqueduct, removed debris from under Carthage Aqueduct, removed trees from twelve, six, eight and two mile levels.

The basin opposite flour mill at Lockland was cleansed free of mud. Built flume at Lesourdsville to carry water into Cincinnati while building new aqueduct. Cut down trees on berme bank of canal between Hamilton and Excello, built dams at north and south ends of Lesourdsville Aqueduct, removed old aqueducts from canal at Lesourdsville and Crane's Run. Built new rack at elevator mill in Cincinnati, cleansed banks of debris from Cincinnati to Lockland seven times during the past season.

REPAIRS NEEDED.

The Rockdale and Lower Hamilton locks need to be rebuilt. Rialto, Excello, Flour Mill lock at Lockland, Collector's lock at Lockland need repairs. The jaws of Tangemans lock at Lockland should be rebuilt.

LOCK GATES.

New upper and lower gates are needed at Amanda, new floor is needed for same lock, several locks need new balance beams.

CULVERTS.

The culvert at Holwager's should be enlarged. Bloody Run culvert needs repairs.

AQUEDUCTS.

Miamisburg, Crescentville and Port Union aqueducts need repairs.

WASTE GATES.

New waste gates including entire new woodwork should be rebuilt near the flouring mill at Lockland; new waste gates are needed on the Greenland level above the State dam, and at Rockdale on the four mile level new waste gates are needed at the elbow and at Court Street and back of the Morgue in Cincinnati. New feeder gates including entire new woodwork should be rebuilt at Dines lock. The waste gates at Dwyers needs repairs.

DAMS.

There should be a new dam built at State Dam above Middletown, as the old dam is in a worthless condition.

DREDGING.

The canal from Miamisburg to Middletown should be dredged and from Lockland to Cincinnati should be dredged.

TOWING BRIDGES.

New towing bridges should be built at Miamisburg, Lesourdsville, Middletown, Dines and Crane's Run.

CANAL BANKS.

Need raising from Miamisburg to Cincinnati in places.

WASTE WAYS.

Waste ways need repairing on six mile level above Lockland and on six mile level above Hamilton and at Sheeds above Franklin.

FOOT BRIDGES.

A number of foot bridges are needed along the Division.

. TUMBLES.

The tumble south of Lower Mill at Lockland and the falls at State house needs repairs.

OFFICE OF SUPERINTENDENT OF REPAIRS.

DAYTON, OHIO, December 8, 1906.

HON. CHAS. E. PERKINS, Chief Engineer of Ohio Public Works, Columbus, Ohio.

DEAR SIR:—The following is my annual report on the repairs made on Second Subdivision of the Miami and Eric Canal during the past year, ending Nov. 15, 1906, and also repairs needed for the ensuing year.

The subdivision extends from West Carrollton to New Bremen, a distance of 78 miles and also includes the Lewiston and Loramie reservoirs, and the Sidney and Loramie feeders.

FOREMEN.

Lincoln Evans, foreman repair boat No. 1, at Dayton, 5 years' service and 9 years as boatman. Edward McConnell, foreman of repair boat No. 2 at Piqua, 31 years' service.

There is on this subdivision two repair boats and one dredge.

REPAIRS MADE.

Aqueducts.

Two spans of the Lockington Aqueduct were repaired with part new posts, and part new siding, and rods tightened. The 35 foot span of the Troy Aqueduct was repaired with several new posts and one side re-planked and two new wing walls.

The stone pier next to the north abutment of the Miami Aqueduct was found to be in bad condition, and it was repaired by building a concrete wall ($2\frac{1}{2}$ ft. thick at base and 1 foot thick at top and sixteen feet high), all around it. This makes the pier stronger than when it was first built.

LOCKS.

Locks 1, 4, 6, 11, 24 had the walls partly aligned and part pointed with cement mortar. All locks were cleaned out.

LOCK GATES.

One pair of new gates were put in Lock 8. Gates 2, 3, 7, 9, 10, 22, and 28 were repaired. Some by being spliced, some new balance beams and some by replanking.

· CULVERTS.

Slight repairs were made on the Oak's Creek culvert. All other culverts were cleaned out of all debris.

DAMS.

The brush and stone dam at Troy feeder was repaired with stone and gravel.

BANKS RAISED.

The bank of the level above Piqua was raised two feet for a distance of 400 feet. The level below Piqua was raised two feet for a distance of 800 feet.

The bank on the level below Dayton was raised and strengthened in several places where breaks had occurred the year before.

BARS REMOVED.

Bars were moved at the Bluffs near Dayton and wheeled on the bank to sterngthen it.

BRIDGES.

New bridges were built at Locks 1, 3 and 10. A new towing bridge was put in at Oaks Creek.

WEEDS AND BRUSH.

Weeds and brush were cut from Dayton to Carrollton, and from Troy to New Bremen, and from Lockington to Port Jefferson, the Sidney feeder.

DREDGING.

Dredge No. 4 worked one month on the level below Dayton. The dredge has been on the first subdivision since May, 1906.

WASTE AND FEED GATES.

Some repairs were made on the waste gates on the summit level. New frame and gates were put in at Oak's Creek.

WASTE WEIRS.

The stone weirs on the levels above and below Piqua were repaired with stone and gravel.

RESERVOIR BANKS.

In February, 1906, a severe wind and rain storm endangered the safety of the Lewiston reservoir bank west of Lakeview and left it in a dangerous condition, and the storm weakened the bank at other points. Since that time for the protection of the bank, there has been driven in front of the bank 240 piling 16 feet long, over 50,000 cubic feet of logs has been gathered from the drifts in the reservoir and placed between the piling and the bank, and three thousand cubic yards of earth has been hauled on the lowest parts of the bank.

All at a cost of \$4,650.00.

SLUSHING THE CANAL.

In the level below Piqua the weeds and flags had grown far out on the sides of the banks, thereby holding the sediment and decreasing the width of the canal to such an extent that it became impossible to pass the amount of water needed for the Mills below. Canal scrapers were put in on the level below Piqua and the sediment was scoured out through the lock at Stillhouse and in the same way it was carried through the two mile level to Allen's Mill, ½ mile below that, it was passed through the aqueduct and from that point $2\frac{1}{2}$ miles to Troy, was treated the same way. The water and sediment being passed through a flume just above the lock at Troy. The result is that there is a good canal between Troy and Piqua, a distance of 8 miles. The canal is full width, and in no place is there less than four feet of water and nearly all is five feet.

The conditions at Dayton were so bad, especially in the basins at the Public landing, which is wide, and a dead end, as it is back water from the mills at that point, the basins were so filled up that it was impossible to pass a boat with half a load. This, by order of the Board was slushed out through the waste gates, just below Dayton. Later the same conditions were carried out as far as Carrollton, (with the exception of about 2,000 feet near National Cash Register), where a lot of sand and gravel was washed in. There is a good canal between Dayton and Carrollton.

I am pleased to report that there has been no break in the canal banksthe last year, except at Oak's Creek, which was caused by the canal being filled up on account of the Miami aqueduct being out of repair.

The improvement from Dayton to Carrollton was charged to the permanent improvement fund in charge of Engineer James C. Wonders.

REPAIRS NEEDED ON THE SECOND SUBDIVISION OF THE M. & E. CANAL FOR THE ENSUING YEAR.

AQUEDUCTS.

The five spans of Lockington aqueduct need to be overhauled and tightened up and one pier needs to be rebuilt.

The Plum Creek aqueduct, 40 foot span requires a new structure, as the present one is in very bad condition and if it should collapse, it would cut off the water from all interest on the canal at Piqua and the north.

LOCKS.

Locks 3, 5, 6, 7, 17, and 19 needs to be unwatered and part new floors put in and mitres repaired and planked and part of the walls set back and aligned.

LOCK GATES.

9 pair of new gates are needed on this subdivision.

CULVERTS.

A 12 foot stone culvert 2 miles north of Lockington is in dangerous condition, and needs to be treated as the Holt's Creek Culvert with a concrete wall on the outside of the stone arch.

The 14 foot culvert 6 miles north of Lockington needs to be treated in the same way.

BANKS SHOULD BE RAISED.

The banks need to be raised in many places, especially east of Sidney on the feeder. This can be best done by the dredge.

DAMS.

The Piqua dam will need to be partly rebuilt. The Port Jefferson dam needs a new floor, and the brush and stone dam at the Troy feeder needs to be repaired.

DREDGING.

This subdivision needs dredging its entire length, a large amount of this could be done by a system of sluice gates, where the material is not needed for raising the banks.

The conditions for sluicing out the canal on this subdivision are very favorable on account of so much of the canal running close to and parallel with the river.

In July, 1903, the Miami aqueduct collapsed, causing the water to be out of the canal north of Dayton, a distance of ten miles. Since then, many bars and much sediment has been washed in and at present, there could not be passed on an average more than two feet deep of water in that distance

WASTE GATES.

New gates and a complete new structure is needed on the summit level. In last March, the timber structure and gates of the Loramie's feeder collapsed. This has not been rebuilt. No water can be turned into the canal from the Loramie reservoir until this is rebuilt.

FEED GATES

The feed gates at the Loramie reservoir needs to be repaired.

At Port Jefferson there are temporary frame and gates put in as it was impossible to use the old structure. The walls of which are of stone and has been undermined. This should be repaired, as a large amount of damage would result by the breaking of the temporary structure, thereby letting the river into the canal.

WASTE WEIRS.

The waste weir at the Loramie reservoir collapsed in April, 1903.

This weir is one hundred and seventy feet in length with two drops. First drop seven feet, second drop six and one half feet. A temporary dam has been put in where the water approaches the weir whereby the watr is held in the reservoir at nearly its normal height.

Waste weir of timber and summit level 70 feet long, 3 drops, feet, 7 feet and 5 feet need to be rebuilt. Several weirs need slight repairs. The seventy-five feet weir, seven feet drop at Tippecanoe will have to be entirely new. A new weir is needed below Dayton at Shroyer's Run.

FEEDERS.

Many bars and a large amount of sediment washed into the Sidney feeder, which makes it very difficult to pass the water needed for navigation, and if those obstructions are not removed soon, it will be impossible to pass the amount of water needed for the main canal at Lockington. The bank a distance of three miles north of Sidney is dangerously low.

RESERVOIRS.

For the protection of the Lewiston Reservoir Bank, it will require 650 piling, 16 feet long, and 3,200 pieces of lumber $2\frac{1}{2} \times 4$ feet, and will need 4,000 cubic yards of earth, and large amount of drift logs to place between the piling and the bank. The logs can be found in the reservoir.

LORAMIE'S RESERVOIR BANK.

To protect Loramies reservoir bank will need 150 pieces of piling, 16 ft. long, 560 pieces of lumber, $2\frac{1}{2} \times 6$ feet, 14 feet long. 2,300 cubic yards of earth will cost about \$1,571.00.

I respectfully refer you to Secretary's report for financial statement.

Very respectfully submitted.

John O'Connor,
Superintendent.

OFFICE OF SUPERINTENDENT OF REPAIRS.

Toledo, Ohio.

HON. CHAS. E. PERKINS Chief Engineer, Public Works of Ohio.

I have the honor to submit herewith my annual report of repairs made on Sub-division No. 3, Grand Division No. 3, Miami and Erie Canal, during the year ending November 15, 1906.

This sub-division extends from New Bremen to Toledo, a distance of 121 miles and includes the St. Marys feeder and Grand Reservoir.

There are on this sub-division, three repair boats, two scows, one steam dredge (not serviceable), one horse and two mules, besides tools and appliances, all being the property of the State of Ohio.

FOREMEN.

The following is a list of foremen regularly employed on this sub-division, also their post office address and number of years employed.

S. E. Allmon, Toledo, Ohio; 12 years.

J. R. Spencer, Delphos, Ohio; 21 years.

Frank Bennett, St. Marys, Ohio; 6 years.

AQUEDUCTS.

The abutments of the St. Marys Aqueduct received slight repairs. The Auglaize River Aqueduct received needed repairs.

LOCKS.

Locks Nos. 12, 20, 32, 35, 45, 46, 47, 48, 49, 50, 51 and 52 each received temporary repairs.

Lock No. 38 received a new deck and head.

Lock No. 39 being a river lock, the water was removed and the lower story anchored to the mud sills.

LOCK GATES.

The gates at Locks Nos. 17, 18, 31 and 33 received needed repairs. Locks Nos. 15, 30, 47, 48, 49, 51 and 52 each received two new gates. Lock No. 24 received four new gates.

CULVERTS.

Culverts Nos. 7, 11, 14, 15, 16, 17, 27, 29 and 32 received needed repairs, also three culverts under the towing path along the slack water were each repaired.

DAMS.

One hundred and ten cubic yards of rip-rap stone was placed between the old and new dams at Providence.

BANKS.

The towing path embankment for short distances below Lock No. 1, along the 5, 9, 18 mile levels, St. Marys feeder and hydraulic was raised and repaired.

A new berm bank was constructed between the canal and Hookers pond, at South Defiance.

BRIDGES.

The towing bridge crossing the waste way on the nine mile level, Jennings Creek, and Lock No. 46 were each repaired.

Two new bridges were placed at Lock No. 23.

BRUSH AND WEEDS CUT.

The brush and weeds were cut from the canal bank from Lock No. 14 to Toledo, and from the banks along the St. Marys feeder.

WASTE WEIRS.

The waste weirs at Locks Nos. 25, 26, 32, 33, 34 and 38 were each repaired. New waste weirs were placed at Locks Nos. 18 and 21.

FEEDERS.

Piling protection was placed in front of the feeder at the Grand Reservoir. The debris was removed from the Providence feeder.

MISCELLANEOUS REPAIRS.

Repair boats Nos. 1, 2 and 3 were each calked and painted.

The upper stories of locks Nos. 14, 36 and 37 were removed.

Sheet piling dams were placed in the canal and the banks cut on the five and nine mile levels in order to prevent the storm water from Interfering with the contractors at lock No. 14 and Six Mile Aqueduct.

REPAIRS NEEDED.

AQUEDUCTS.

A new aqueduct is needed crossing little Jennings Creek, which should be made an arch culvert.

New abutments are needed at St. Marys aqueduct.

New super-structure is needed at Flat Rock Aqueduct and the abutments should be repaired.

Concrete aprons should be placed at Blue Creek, Flat Rock and St. Marys Aqueducts.

LOCKS.

New locks are needed at Nos. 2, 3, 4, 5, 6, 7, 9, 10, 11, 12, 13, 15, 16, 17, 18, 19, 20, 21, 22, 23, 25, 26, 27, 28, 29, 31, 32, 33, 34, 35, 38 and 39, as these locks are constructed of wood, the lower stories are in a very bad condition owing to erosion.

Locks Nos. 41, 42, 43, 45, 46, 47, 48, 49, 50, 51 and 52 being stone locks, should be rebuilt from the water line of the lower levels, as the lime stone which has been exposed to frost, has so deteriated that the walls are about to fall.

Locks Nos. 8, 24, 30, 40 and 44 need slight repairs.

The feed lock at the Grand Reservoir needs extensive repairs.

CULVERTS.

Owing to the improved condition of the drainage between New Bremen and Defiance, the culverts which were placed under the canal during its original construction (the majority of which are of wood) are at present entirely inadequate to pass the water during the wet seasons of the year, thus the private property adjacent to the canal is damaged.

There are on this sub-division of the canal thirty-three culverts which should be rebuilt and fifteen stone culverts which should be repaired.

DAMS.

A new dam is needed at Providence.

The abutments at Independence dam should be repaired, protection walls placed on either side and the embankments strengthened.

BANKS RAISED.

The canal banks should be raised and strengthened the entire length of this sub-division. The water level has been lowered from time to time in order to prevent flooding the banks until the standard level is, at the present time, from 12 to 14 inches below its original height.

BARS REMOVED.

The bars between Independence and Florida, below Providence and Bucklin Lock should be removed.

BRIDGES.

New bridges are needed crossing the St. Marys feeder, Flat Rock Creek and at Boyds change bridge.

BRUSH AND WEEDS CUT.

The brush and weeds should be cut from the canal embankments each year.

DREDGING.

The canal should be dredged to a depth of from 12 to 18 inches, from New-Bremen to Defiance, Independence to Florida and through the City of Napoleon.

WASTE WEIRS.

New waste weirs are needed at locks Nos. 2, 3, 4, 5, 6, 7, 9, 10, 11, 32 and 33.

MISCELLANEOUS REPAIRS.

A new boat is needed to replace repair boat No. 1.

Repair boats Nos. 2 and 3 should be calked and painted each year.

In conclusion I wish to call your attention to the fact: that, owing to a lack of funds sufficient to make permanent improvements, the department has been obliged to make temporary repairs as best they could from year to year on this sub-division until the canal has reached such a state of delapidation that in order to preserve it, it must be practically rebuilt.

Very respectfully submitted,

H. W. MEACHAM, Superintendent of Repairs.

Toledo, Ohio, November 15, 1906.

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ABSTRACTS OF MONIES PAID

BY

SUPERINTENDENTS OF REPAIRS.

(99)

ABSTRACT OF MONEYS PAID BY SUPERINTENDENTS OF REPAIRS.

ABSTRACT OF MONEY PAID.

By Charles Hatch, Superintendent Sub-Division No. 1, Grand Division No. 1, Ohio and Erie Canal, for Material and Labor for the Maintenance and Repair of the Public Works.

No. of Voucher.	To Whom.	د. اد For What Paid.	A. Junt.
1 2 3 4 5 6 6 7 8 9 100 111 12 13 144 15 166 17 18 19 20 21 22 23 24 25 26 27 28 29	J. H. Morrison. J. I. Johnston. John Moore J. M. Jones. Charles Savacool C. W. Riley. H. A. Krisher. R. L. Mead. William O. Myers. Bowers & Conkle Lum. Co. The Massillon Lumber Co. Hemperly Hardware Co. Hartel & Milar The McNeil Boiler Co. G. A. Kempel & Co. Taplin, Rice & Co. Taplin, Rice & Co. G. Hanley Heiser, Van Camp & Carpenter D. Atwater & Son. The Massillon Paper Co. East Ohio Gas Co. E. C. Taggart. The B. & O. R. R. Co. The Massillon Water Supply Co. H. G. Patton. Charles Hatch F. W. Schaub. Citizens' Telephone Co. Charles E. Perkins. Pay roll of officers. Pay roll No. 1 Pay roll No. 2 Pay roll No. 3 Dredge pay roll.	Lumber used on repairs. Hardware used on repairs. Hardware used on repairs. Repairs on steam dredge. Repairs on steam dredge. Repairs on steam dredge. Repairs on steam dredge. Coal for nortable engine. R. R. fare Cement used on repairs. Straw used to cover sluice. Gas used at offices. Plumbin and supplies Mileage book Water used on dredge. Repairing buggy Expenses as Supt. Messenger service Telephone service Traveling expenses as chief engr. Salaries Labor Labor Labor Labor	36 65 42 65 61 15 10 50 10 00 12 50 432 66 154 50 190 50 700 96 97 13
	Total		\$2,672 85

ABSTRACT OF MONEY PAID - Continued.

No. of Voucher.	To Whom.	Id For What Paid.	Amount.
		January, 1906.	
1 2 3 4	J. L. Johnston	Feeding state horse, etc	\$12 00 23 33 10 00
5 6 7 8 9	ing Co. Brewster Coal Co The East Ohio Gas Co Robert & Son A. Adamson Peterson & Wright Bower's & Conkle Lumber	Repairing pipes in barn	1 20 14 63 5 70 2 08 7 90 2 50
11 12	Co	Lumber used on new sluice Mileage book	18 48 30 00
13 14	Co	Hardware used on repairs Telephone service Repairs for flood gates at Massil-	14 94 21 65
15 16 17 18 19 20 21 22 23	David Atwater & Son. E. Conners Charles M. Knight. Charles Hatch The Hankey Lumber Co. Charles E. Perkins. F. W. Schaub. W. H. McClintock. William Kelley Pay roll of officers. Pay roll No. 2. Pay roll No. 3. Dredge pay roll.	lon Cement and salt used at Massillon Labor Chemical test of water Expenses as supt. Lumber used on repairs. Traveling expenses as chief engr. Messenger service Traveling expenses as Secretary. Coal furnished	5 85 23 10 20 00 4 50 63 40 19 30 13 70 6 66 5 00 14 27 432 66 115 50 399 89 57 75
	Total	•••••	\$1,345 99
		February, 1906.	
1 2 3 4 5 6 7 8 9	Charles Hatch J. I. Johnston John Moore Charles Savacool Hardware Supply Co. Harter & Milar H. Myers Weil & Bisker H. A. Fisher Ira Dreisbach	General blacksmithing	\$64 90 10 80 21 40 12 49 50 14 73 7 70 3 65 4 05
14	Cuyahoga Telephone Co Akron People's Tel. Co Western Union Tel. Co Rohrbacker & Allen E. J. McLaughlin	Telephone service	83 79

Abstract of Money Paid - Continued.

No. of Voucher.	To Whom.	And For What Paid.	Amount.
16 17 18 19 20	Peterson & Wright The Hankey Lumber Co Akron Tent & Awning Co. East Ohio Gas Co Charles E. Perkins. Pay roll of officers Pay roll No. 2. Pay roll No. 3. Pay roll No. 4. Dredge pay roll.	Cement used on repairs	16 88 5 00 13 00 6 68 15 00 432 66 68 75 208 75 88 50 18 20
	Total		\$1,126 78
		March, 1906.	
1 2 3 4 5	A. A. Likens. J. I. Johnston. John Moore Charles Savacool Harter & Milar Myers Bros.	Labor performed Feeding state horse, etc Feeding state team, etc Feeding state horse, etc Hardware used on repairs Hardware used on repairs	\$1,476 00 11 80 34 50 11 10 27 41 15 74
8 9 10 11 12 13 14 15 16 17 18	The Hemperly Hardware Co. The Hankey Lumber Co. The Massillon Lumber Co. Taplin, Rice & Co. The McNeil Boiler Co. Brewster Coal Co. John Brunner G. A. Kempel & Co. Reid Bros. William O. Myers. Western Union Tel Co. East Ohio Gas Co. Charles Hatch	Hardware used on repairs. Lumber used on repairs. Lumber used on repairs. Repairs for steam dredge. Repairs for steam dredge. Coal for steam dredge. Repairs for steam dredge. Repairs for steam dredge. Ruber steam dredge. Horse shoeing Message charges Gas used at offices. Expenses as Supt.	1 53 8 52 2 95 38 46 21 38 22 50 16 80 6 15 44 00 5 80 75 5 82 71 50
20 • 21 22 23	Akron Plumbing & Heating Co. Akron People's Tel. Co Charles E. Perkins. Charles W. Diehl. Pay roll of officers. Pay roll No. 2. Pay roll No. 3. Dredge pay roll.	Services	1 65 10 40 12 00 8 50 432 66 232 12 287 75 221 12
	Total for month		\$3,028 91
		April, 1906.	
1 2	Charles Savacool	Feeding state horse, etc	\$10 75 11 80

Abstract of Money Paid - Continued.

No. of Voucher.	To Whom.	And For What Paid.	Amount.
3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	Charles E. Perkins	Medicine for state horse. Lumber used on repairs. Hardware used on repairs. Gas used as offices. Expenses as Supt. Telephone services Traveling expenses as chief engr.	22 10 25 00 25 00 85 4 09 24 39 1 00 5 55 8 00 6 70 41 66 2 46 70 10 8 00 15 00 432 66 266 37 442 55 247 62
	lotal for month	May, 1906.	\$1,675 60
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	Akron People's Tel. Co	Feeding state horse, etc. Feeding state horse, etc. Feeding state team, etc. Hardware used on repairs. Hardware used on repairs. Hardware used on repairs. Lumber used on repairs. Lumber used on repairs. Repairs for steam dredge. Repairs for steam dredge. Harness repairs Blacksmithing Livery Services rendered Gas used at offices. Telephone service Expenses as Supt. Traveling expenses as chief engr.	\$11 60 12 50 22 30 14 19 9 11 1 5 50 2 9 47 5 71 1 4 89 4 20 3 05 2 04 50 00 457 66 205 62 438 00
	1		258 50 \$1,655 34

ABSTRACT OF MONEY PAID - Continued.

No. of Voucher.	To Whom.	And For What Paid.	Amount.
	,	June, 1906.	
1 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 22 22 23 24 22 22 28 28 28 28 28 28 28 28 28 28 28	J. H. Morrison. J. I. Johnston. John Moore Myers Bros. Harter & Milar Summit Lumber Co. Summit Harness Co. Weil & Bisker. H. Myers William O. Myers. H. Simmons Coal Co. William Drury D. A. Smith. Andrew Oehl Taplin, Rice & Co. McGee Bros. Donald B. Young. Hiser Bros. Peterson & Wright. The Burch Directory Co. East Ohio Gas Co. Charles Hatch Charles Savacool G. A. Kempel. John Brunner Bargerton Feed Store. Akron People's Tel. Co. Charles E. Perkins. Pay roll No. 2. Pay roll No. 3. Dredge pay roll.	Feeding state horse, etc	\$7 93 11 00 27 55 41 52 14 19 29 17 75 6 75 8 50 4 20 11 69 18 90 4 44 8 80 3 80 16 25 6 00 63 00 8 10 4 00 3 73 15 85 1 80 12 05 15 00 457 66 174 97 248 88
	Total for month		\$1,746 70
		July, 1906.	
1 2 3 4 5	James Roach J. I. Johston John Moore Charles Savacool The Hemperly Hardware	Freight bills. etc	\$2 55 11 55 22 40 10 35
6 7 8 9 10 11 12 13	Co. Harter & Milar. William Donckley Koons Bros. H. A. Krisher. Thomas P. Howland. Taplin, Rice & Co. The Russell & Co. H. Simmons Coal Co.	Hardware used on repairs. Hardware used on repairs. Damaged property Paint, etc. Blacksmithing Blacksmithing Repairs for steam dredge. Repairs on steam dredge. Coal for steam dredge. Rubber boots	7 28 37 00 10 00 3 08 5 20 1 60 38 80 30 23 19 84 19 00

No. of Voucher.	To Whom.	And For What Paid.	Amount.
15 16 17 18 19 20 21 22	W. J. McCourt	Supplies used at Lock 1	10 37 1 75 1 20 6 49 6 57 40 80 15 00 400 00 457 66 233 50 473 00 228 00
		August, 1906.	
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24	Pay roll No. 2	Feeding state horse, etc. Feeding state team, etc. Feeding state team, etc. Feeding state horse, etc. Flynet for state horse. Hardware used on repairs. Hardware used on repairs. Lumber used on repairs. Repairs on steam dredge. Repairs and coal on steam dredge. General blacksmithing. Supplies at office at Lock 1. Supplies at office at Lock 1. Liverey Telephone service Cutting grass Boat pump Expenses as Supt. Harness repairs Transferring of Young's deed. Repairs on cover. Treatment and medicine for Selem Woods Traveling expenses as chief engr Painting name on state boat. Salaries Labor Labor	\$7 30 10 00 22 75 10 00 35 14 30 40 10 00 20 15 4 40 9 10 67 5 75 2 00 9 80 105 00 5 32 69 80 2 45 1 10 50 18 00 15 00 10 00 10 00 10 00 20 15 4 40 9 10

No. of Voucher.	To Whom.	And For What Paid.	Amount.
		September, 1906.	
1 2 . 3 . 4 5	Charles Savacool J. I. Johnston John Moore Wash Carpenter The Hemperly Hardware	Feeding state horse, etc	\$10 40 11 20 22 50 17 00
6 7 8 9 10 11 12 13 14 15 16	Co. The Hess-Snyder Co. Myers Bros. E. L. Gilcher. The People's Coal Co. A. Adamson Harter & Milar. The Massillon Lumber Co. William O. Myers. R. L. Mead. The Russell & Co. East Ohio Gas Co. Akron Plumbing & Heat-	Lumber used on repairs	6 76 98 70 6 96 2 00 23 02 6 00 31 48 10 16 4 35 1 25 1 31 32
18 19 20 21 22	ing Co. The Kraus-Keim Co. J. McGee & Co. J. A. Smith. Charles Hatch Charles E. Perkins. Pay roll of officers. Pay roll No. 2. Pay roll No. 3. Pay roll No. 4. Pay roll No. 5.		15 11 13 73 50 98 69 40 15 00 457 66 129 12 260 12 206 13 319 87
	Total for month		\$1,796 47
		October, 1906.	
1 2 3 4 5	Charles Savacool J. J. Johnston John Moore Harry Simmons The Russell & Co The Hemperly Hardware	Feeding state horse	\$10 25 10 00 22 00 32 77 10 81
7 8 9 10	Co		14 83 33 37 1 92 4 00 2 00
11 12 13 14 15 16	H. Myers E. Porter W. C. Keenan Wash Carpenter	lock General blacksmithing General blacksmithing General blacksmithing Deering mower 1 set single harness. Gas used at offices.	7 60 6 35- 3 30 10 00- 5 00- 1 52

ANNUAL REPORT

No. of Voucher.	To Whom.	And For What Paid.	Amount.
17 18 19 20 21 22	Akron Plumbing & Heating Co. Akron People's Tel. Co. D. Atwater & Son. Charles Hatch C. E. Perkins. J. M. Jones. Officers pay roll Pay roll No. 2. Pay roll No. 3. Pay roll No. 4. Total for month.	Repairs on Lock 1	6 57 22 25 3 85 62 65 15 00 5 95 457 66 296 99 464 72 272 25
		November, 1906.	
1 2 3 4 5 6 7	J. H. Morrison	Expenses as collector	\$9 25 3 60 24 25 20 25 27 50 18 00
8 9 10 11 12 13 14	Co. Harter & Milar. E. R. Gilcher. The McNeil Boiler Co. Harry Simmons The People's Coal Co. R. L. Mead. Hancock & Ritchie.	Supplies furnished steam dredge. Hardware used on repairs Repairs on boiler for steam dredge. Supplies for steam dredge Coal for steam dredge Coal for steam dredge Neck strap and harness repairs Straw to fill beds on dredge cook boat	6 75 18 01 4 25 5 35 18 00 13 55 2 20
15 16 17 18 19	D. Atwater East Ohio Gas Co. B. L. Dodge. Charles Hatch Charles E. Perkins. Officers pay roll. Pay roll No. 2. Pay roll No. 3. Dredge pay roll.	Telephone service, etc	30 55 3 10 39 75 63 15 15 00 457 66 119 48 389 75 253 50
	Total for month		\$1,544 41

ABSTRACT OF MONEY PAID.

By Charles Hatch, Superintendent Sub-Division No. 1, Grand Division No. 1, Ohio and Erie Canal, for Material and Labor for the Improvement of the Northern Division Ohio Canal.

			- · · · · · · · · · · · · · · · · · · ·
No. of Voucher.	To Whom.	And For What Paid.	Amount.
		December, 1905.	
1 2 3 4 5 6 7 8 9 10 11 12	C. B. Stebbins T. D. Paul Hosea Paul Ray I. Bachtell Ed. L. Steinhour D. A. Williston George A. Patterson Ed. G. Major W. B. Watkins C. W. Lewis D. A. Ely J. M. Jones	Feeding state team etc. Expenses as civil engr. Expenses as civil engr. R. R. fare and freight bills. R. R. fare. C. R. Fare. C. R. Fare. C. R. Gare. Coal oil, lanterns, etc., at weigh lock	\$29 05- 15 85- 20 76- 13 29- 4 15- 17 20- 15 35- 2 80- 23 54- 4 14- 38 40- 2 30- 7 35-
14 15 16 17	J. J. Eberly	Repairs at weigh lock	200 00 151 50 330 75
18 19 20 21 22 23 24 25 26 27 28	Co. W. H. McCreery. A. Adamson A. W. Shatts. William H. Mott. A. H. Allen. Harter & Milar. Reid Bros. C. G. Heinton. Western Union Tel. Co. F. Johns George E. Conner. Pay roll No. 1. Pay roll No. 2. Pay roll No. 3. Pay roll No. 4. Pay roll No. 4. Pay roll No. 5.	Cement Coal Material used for special work Salt Frame for culvert at Peninsula. New style for gates Hardware for improvements. Rubber boots General blacksmithing Message charges Returning state horse. Time and expense in finding horse.	64 90 6 36 22 98 6 25 2 50 5 04 15 54 24 50 21 83 75 15 00 10 00 434 00 798 20 123 75 344 50 34 14
	Total for month		\$2,806 67
		January, 1906.	
1 2 3 4 5 6 7	D. A. Ély	Expenses as inspector	\$38 29 24 60 16 18 5 98 10 91 10 00 51 69

No. of Voucher.	To Whom.	And For What Paid.	Amount.
8 9 10 11 12 13 14 15 16 17 18 19 20 21 23 24 25 26 27 28 29 30 31 32	D. A. Ely W. M. Kelley Braund-Vaughan Coal Co A. W. Shatts Hugh L. Beavis Peterson & Wright Fred E. Greer. W. B. Watkins. The Mead Lumber Co The Burger Iron Co American Scrap Iron Co Ira Dreisbach P. T. McCourt Conrad Keist W. M. Pattison Supply Co. The Hamlet Lumber Supply Co. Thomas Wilson G. A. Kempel Carpenter, Van Kamp & Wilds Charles Stebbins Andrew Stuart Anna E. Beers H. F. Peck W. M. Pattison Supply Co. Pay roll No. 1 Pay roll No. 2 Pay roll No. 3 Pay roll No. 4 Pay roll No. 5		31 00 20 00 7 79 8 75 60 00 96 45 5 00 25 03 75 40 66 44 9 00 6 52 16 20 4 25 36 12 430 38 1 00 1 72 19 69 24 85 35 37 3 61 42 00 70 00 328 75 554 61 694 75 296 50 1,201 21
1 2 3 4 5, 6 7 8 9 10 11 12 13 14 15 16	C. B. Stebbins T. D. Paul W. B. Watkins Hosea Paul	February, 1906. Feeding state team, etc	\$25 45 7 80 6 25 16 44 11 30 11 42 5 29 3 85 9 10 17 75 33 90 125 94 2 33 11 25 7 20 12 50

No. of Voucher.	_ To Whom.	And For What Paid.	Amount.
	Pay roll No. 1	March, 1906.	253 75 489 00 \$1,350 52
1 2 3 4 5 6 7 8 9	C. B. Stebbins. T. D. Paul. Frank Bonstedt W. B. Watkins. Ed. L. Steinhour. C. G. Heinton. Harter & Milar. The McIntosh Hardware. Co. M. O'Neil & Co. J. C. Ulmer & Co. Pay roll No. 1 Pay roll No. 2 Pay roll No. 3. Total for month.	Feeding state team, etc. Expenses as engr. Expenses as inspector. Expenses as inspector. Survey of Adamson property. Blacksmithing Hardware Hardware Office supplies Overhauling rods	\$24 98 22 90 23 93 10 69 4 25 19 54 5 80 10 60 3 30 3 65 244 00 509 25 80 50 \$963 39
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	C. B. Stebbins. T. D. Paul. Frank Bonstedt R. I. Bachtell. Ed. G. Major. W. B. Watkins. Mary Paul E. J. McLaughlin. Mead Lumber Co. Harter & Milar. Peterson & Wright. The M. O'Neil Co. P. A. Alcox. Walter L. Sackmann. Ralph W. Bar. C. H. Burgess. John A. Hanlon. Pay rolls Nos, 1 and 2. Pay roll No. 3.	April, 1906. Feeding state team, R. R. fare, etc. Expenses as civil engr. R. R. fare. R. R. fare. R. R. fare. Typewriting Lumber used on repairs. Lumber used on repairs. Hardware used on repairs. Cement used on repairs. Office supplies Tape measure Brass figures Supplies Cement delivered to A. A. Likens. Expenses as engr.	\$41 31 16 36 29 40 35 94 8 30 13 04 13 50 241 74 21 60 30 95 63 00 10 35 5 00 3 00 6 25 61 71 84 00 862 50 522 56



To Whom.	And For What Paid.	Amount.
South Brooklyn Coal Co Pay roll No. 1 Pay roll No. 2	Protection stone Coal	\$30 95 31 32 19 05 26 30 17 15 20 93 11 00 31 20 55 76 73 83 5 75 9 50 2 50 2 50 2 50 2 50 2 3 75 1 50 23 75 3 50 13 42 10 00 22 00 32 11 44 21 40 10 4 50 81 25 73 38 719 73 622 75 526 30 \$2,780 97
Sam J. Hibbs	R. R. fare	\$36 31 24 70 400 00 20 00 81 54 30 72 15 70 15 60 32 75 2 95 22 05
	C. B. Stebbins. T. D. Paul. Sam J. Hibbs. Frank Bonstedt A. H. Johnston R. I. Bachtell W. B. Watkins Ed. G. Major. E. J. McLaughlin. C. H. Burgess C. Keist The Atlantic Foundry Co. W. H. Lawless P. T. McCourt Ashley Ames & Son Mead Lumber Co. Hardware & Supply Co. Harter & Milar Charles M. Knight L. Loveman N. L. Moody. The Mitchell Bros. Co. H. F. Peck. Akron Tent & Awning Co. Peterson & Wright. W. M. Pattison Supply Co. Franklin Bros. John Zimmerman South Brooklyn Coal Co. Pay roll No. 1 Pay roll No. 2 Pay roll No. 3 Total C. B. Stebbins. T. D. Paul. A. A. Likens L. Seeley C. H. Burgess Raymond I. Bachtell W. B. Watkins Sam J. Hibbs E. G. Major A. H. Johnson Frank Bonstedt The Hardware & Supply	C. B. Stebbins. Feeding state team, etc. T. D. Paul. Expenses as civil engr. Sam J. Hibbs. R. R. fare. A. H. Johnston. R. R. fare. A. H. Johnston. R. R. fare. W. B. Watkins. R. R. fare. E. J. McLaughlin. Labor and material. C. H. Burgess. Car for shipping stone. C. Keist Teaming The Atlantic Foundry Co. W. H. Lawless. Livery Ashley Ames & Son. Livery Ashley Ames & Son. Livery Mead Lumber Co. Lumber Hardware & Supply Co. Hardware Hardware & Milar. Hardware Charles M. Knight. Determining gravity of stone. L. Loveman Rubber boots N. L. Moody. Rubber boots N. L. Moody. Rubber boots N. L. Moody. Rubber boots N. H. Peck. Prints Akron Tent & Awning Co. H. F. Peck. Prints Akron Tent & Awning Co. Franklin Bros. Double Hip roof tent. Cement South Brooklyn Coal Co. Franklin Bros. South Brooklyn Coal Co. Pay roll No. 1. Pay roll No. 1. Pay roll No. 3. Total June, 1906. C. B. Stebbins Feeding state team, etc. Expenses as civil engr. Expen

Harter & Milar				
15 G. M. Boodey	No. of Voucher.	To Whom.	And For What Paid.	Amount.
1 C. B. Stebbins. Feeding state team, etc. \$40 2 T. D. Paul. Expenses as civil engr. 19 3 W. B. Watkins. R. R. fare. 12 4 Sam J. Hibbs. R. R. fare. 8 5 M. Heiser & Van Camp. R. R. fare. 37 6 Ed. Major R. R. fare. 9 7 E. J. McLaughlin. Extra work on lock gates. 31 8 Raymond I. Bachtell. Freight bills, etc. 30 9 A. H. Johnson. Freight bills, etc. 40 10 The Atlantic Foundry Co. Machining 22 gate irons. 5 11 C. H. Burgess. 1 car stone. 35 12 The Bellevuic Stone Co. 1 car stone. 35 13 Crowell & Peck. Inspecting Iroquois cement. 15 14 Hardware & Supply Co. Hardware used on repairs. 22 15 The Hardware & Supply Coal 11 16 Anna E. Beers. Hardware used on repairs.	15 16 17 18 19 20 -21 22	G. M. Boodey. H. Myers South Brooklyn Coal Co Frank Hamilton W. H. Lawless. The Mills Carleton Co Peterson & Wright. Peter Schmidt U. G. Frederick Lumber Co. Pay roll No. 1. Pay roll No. 2. Pay roll No. 3. Pay roll No. 4.	General blacksmithing General blacksmithing Coal for 5 mile lock improvement Coal for 5 mile lock improvement Livery Hemlock plank Cement Gravel Lumber	47 28 6 70 3 70 17 50 6 95 13 50 70 00 82 50 68 25 16 05 481 37 514 50 172 00 402 00
No. 1	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28	T. D. Paul. W. B. Watkins Sam J. Hibbs. M. Heiser & Van Camp. Ed. Major E. J. McLaughlin. Raymond I. Bachtell. A. H. Johnson. The Atlantic Foundry Co. C. H. Burgess. The Bellevue Stone Co. Crowell & Peck. Harter & Milar. The Hardware & Supply Co. Anna E. Beers. Conrad Keist G. P. Harrington. G. M. Boodey. Akron Transfer Co. P. T. McCourt. W. C. Mott. M. Brown The Upson-Walton Co. W. M. Pattison Supply Co. E. J. McLaughlin. Mitchell Bros. Co. The Meade Lumber Co.	Feeding state team, etc. Expenses as civil engr. R. R. fare. R. R. fare. R. R. fare. R. R. fare. Extra work on lock gates. Freight bills, etc. Machining 22 gate irons. 1 car stone. 1 car stone. Inspecting Iroquois cement. Hardware used on repairs. Hardware used on repairs. Hardware used on repairs. Coal Coal Blacksmithing Livery Livery Livery Repairing Gravel Repairs on state boat No. 1. Recairs for state boat No. 1. Repairs and lumber for state boat No. 1 Nails, etc., for state boat No. 1. Lumber on improvement.	\$40 50 19 55 12 00 8 00 9 25 31 50 3 50 40 55 5 50 35 28 55 00 15 00 22 45 11 62 14 38 15 55 11 55 4 15 2 00 7 50 19 45 8 30 14 67 9 85 118 27 3 45 318 83 10 00

No. of Voucher.	To Whom.	And For What Paid.	Amount.
30 31 32	The Hamlet Lumber & Supply Co. Erwin Murphy C. Carl Dietz. Pay roll No. 1 Pay roll No. 2 Pay roll No. 3 Pay roll No. 4 Total for month.	Lumber on improvement	23 82 20 00 100 00 339 00 579 17 419 50 409 83
		August, 1906.	
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 20 21 22	The Summit Lumber Co E. J. McLaughlin U. G. Fredrick Lumber Co. The Bellevue Stone Co Julia Wood Harter & Milar A. Adamson The American Scrap Iron Co. G. A. Kempel & Co Conrad Keist American Steel & Wire Co. Cuyahoga County	Expenses as civil engr. R. R. fare, etc. Iron supplies R. R. fare, etc. Iron supplies R. R. fare, etc. R. R. fare, etc. Lumber used on improvement. Lumber used on improvement. Lumber used on improvement. Lumber used on improvement. Stone used on improvement. Stone used on improvement. Sand used on improvement. Hardware used on improvement. Supplies used on improvement. Iron used on improvement. Iron used on improvement. Iron of the control of the contr	\$31 45 54 35 50 05 10 20 102 87 4 76 6 25 5 00 3 08 23 20 7 20 12 00 97 69 10 00 6 01 4 37 22 40 9 45 28 37 11 53 84 00
	Pay roll No. 1		343 25 531 49 486 50 283 00 \$2,228 47
		September, 1906.	
1 2 3 4 5	W. B. Watkins	Feeding state team, etc	\$45 58 33 98 16 20 11 90 14 17 8 00

BOARD OF PUBLIC WORKS.

Abstract of Money Paid — Continued.

No. of Voucher.	To Whom.	And For What Paid.	Amount.
7 8 9 10 11 12 13 14 15 16 17 18	C. H. Burgess	Rails for Feeder bridge, Peninsula Loading plank, etc. Stone at Peninsula Sand Teaming Livery Dressing tools, etc. Repairing harness Repairing offices at lock 1, etc. Lumber Iron supplies Hardware used on improvement.	272 40 12 90 14 38 54 25 65 75 3 67 4 00 11 25 4 10 42 44 28 25 1 34 28 25 1 34 28 25 1 34 87 90 \$\$1,877 94\$
		October, 1906.	
1 2 3 4	C. B. Stebbins	Feeding state team, etc	\$34 35 26 34 4 60 13 55
5	W. B. Watkins	R. R. fare and expenses as in-	20 40
6 7 8 9 10	Raymond I. Bachtell W. M. Pattison Supply Co. The Hardware Supply Co. J. C. Ulmer & Co The Massillon Iron & Steel	R. R. fare and expenses as inspector Rent of Emerson pump. Nails, etc. Tape Pipe, etc.	25 65 9 00 2 85 7 20 387 07
11 12 13 14 15 16 17	The American Scrap Iron Co. Peterson & Wright Eli W. Cannell N. L. Moody The Guy & Ralph Gray Co. South Brooklyn Coal Co. Barnes & Conklin Lumber		· 14 40 62 40 5 00 30 00 38 40 51 15
18	Co. A. A. Richardson Pay roll No. 1. Pay roll No. 2. Pay roll No. 4. Total for month		254 06 27 50 432 50 612 00 114 25 \$2,172 67
		•	, , = . =

No. of Voucher.	To Whom.	And For What Paid.	Amount.
		November, 1906.	
6 7 8 9 10 11 12 13 14 15 16	Cnarles Stebbins T. D. Paul. John M. Crawford. W. B. Watkins R. I. Bachtell Peter Schmit D. E. Sullivan & Son. Neinhuser Bros. A. A. Likens South Brooklyn Co. The J. C. Ulmer Co. C. H. Hoyt Mfg. Co. Eli W. Cannell Peterson & Wright. The American Scrap Iron Co. The Paragon Insulative Co. J. H. Green. The Bellevue Stone Co. The Hardware & Supply Co. W. M. Patterson Supply Co J. J. Eberle. The Krause Hardware Co. Fitzer & Co. Austin Powder Co. Pay roll No. 1. Pay roll No. 2. Pay roll No. 3.	Feeding state team, etc Expenses as civil engr R. R. fare R. R. fare Gravel for extension on sluice gates Gravel and sand Coal for pumping outlet lock at Cleveland Services as stone mason, etc Coal used 5 mile lock Repairs on K. & C. transit 53 vals. avenama varbolineum Cement used on sluice gate at P. Smithe bridge. Cement used on culvert near Botzum Rails used at 11 mile waste weir. Rails used at 11 mile waste weir. Rails used at 11 mile waste weir. Supplies for derrick Supplies for derrick Supplies for gates at Cleveland. Smoke stack for hoisting engine. Canal gates Repairing tools	\$25 45 27 80 18 95 2 60 15 03 22 50 619 95 46 43 164 75 3 30 8 70 37 10 53 21 103 84 48 00 75 00 15 00 51 13 1 00 117 78 61 50 3 56 38 50 12 10 388 49 530 46 398 00 \$2,889 93

ABSTRACT OF MONEY PAID.

By Charles Hatch, Superintendent Division No. 1, Sub-Division No. 1, Ohio Canal, for Material and Labor for Repairs at Portage Lakes.

No. of Voucher.	To Whom.	And For What Paid.	Amount.
	·	June, 1906.	
	Portage Lake pay roll		\$50 25
-	Total for month		\$50 25
1	Pay roll No. 1	July, 1906.	\$64 75
	Total for month		\$64 75
		` August, 1906.	·
	Pav roll No. 1		\$116 37
	Total for month		\$116 37

ABSTRACT OF MONEY PAID.

By Charles H. Geidel, Superintendent Sub-Division No. 2, Grand Division No. 1, Ohio and Erie Canal, for Material and Labor for the Maintenance and Repair of the Public Works.

No. of Voucher.	To Whom.	And For What Paid.	Amount.
1 2 3 4 5 6 7 8	A. L. Norman W. H. Wilson L. P. Wilson Wilgus Hardware Co A. L. Norman Citizens Telephone Co J. R. Stewart	December, 1905. Feeding team Feeding team Expenses as collector	1 30 3 00 3 00 3 20 3 75 4 60

No. of Voucher.	To Whom.	And For What Paid.	Amount.
10 11 12 13 14 15	C. Norman Samuel Shaeffer Charles H. Geidel. Charles E. Perkins W. H. McClintock F. W. Schaub Samuel Bachtell Pay roll of officers Pay roll No. 1 Pay roll No. 2 Total for month	Livery for Wilson	6 50 15 20 53 65 10 00 4 20 10 50 4 50 259 16 167 52 70 50
		January, 1906.	
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	L. P. Wilson. A. L. Norman. W. H. Wilson. M. S. Harvey. J. A. Bell. Age Publishing Co. Estate of Samuel Hilton. A. T. Lechty. L. P. Wilson. C. H. Geidel. G. W. Hilton. Zoar Mills Charles E. Perkins. F. W. Schaub. W. H. McClintock. Leo Veit Pay roll of officers. Pay roll No. 1. Pay roll No. 2. Total for month.	Feeding team Feeding team Expenses as collector. Expenses as collector. Hardware supplies for Norman. 500 notices Canal Laws, Sec. 51- 52-53 100 yds. earth for fill Trenton feeder 200 yds. earth for fill Trenton feeder Traveling expenses and telephone. Expenses as supt. 3 mos. rent Wave Mill Dam. Rent Zoar Dam, year 1905. Traveling expenses as chief engr. Messenger service Traveling expenses as secretary.	\$20 00 20 00 2 10 3 05 3 35 5 00 5 00 8 00 11 45 49 10 75 00 100 00 9 00 6 66 5 00 25 00 25 00 258 16 167 45 115 40
		February, 1906.	,
1 2 3 4 5 6 7 8 9	L. P. Wilson	Feeding team Feeding team Expenses as collector 1 ax and handle. Blacksmith work Hardware Rubber boots Telephone rent and R. R. fare.	\$20 00 20 00 6 00 1 15 1 45 1 85 3 25 5 25 6 10

No. of Voucher.	To Whom.	And For What Paid.	Amount.
10 11: 12 13	L. P. Wilson	Traveling expenses	9 40 59 15 3 60 10 00
	Pay roll of officers Pay roll No. 1 Pay roll No. 2		259 16 242 37 155 50
	Total for month		\$804_23
_	.	March, 1906.	
1 2 3 4 5 6 7	L. P. Wilson A. L. Norman M. S. Harvey Williams Ginnery R. Rieser Robert Hug T. D. Neighbor	Feeding team Feeding team Expenses as collector Hardware Hardware Duck for state boat deck Lumber for repairing break at Navarre	\$20 00 20 00 7 45 8 00 6 00 6 65
8 9 10 11 12 13 14 15 16	Zinsmaster & Fisher. H. W. Westhafer. L. P. Wilson. Clyde Wand J. R. Stewart. Charles H. Geidel. Charles E. Perkins. Samuel Bachtell Charles W. Diehl. Pay roll of officers.	Hardware Dynamite, caps, fuse, etc Traveling expenses Team furnished Wilson Repairing buggy Expenses as supt Traveling expenses as chief engr. Traveling expenses as asst. engr. Services rendered as per bill	9 10 9 65 10 25 3 25 12 00 53 90 10 00 5 15 8 00 269 16
	Pay roll No. 1		171 50 159 24
	Total for month		\$791 80
		April, 1906.	
1 2 3 4 5 6 7 8 9 10 11 12 13 14	L. P. Wilson. A. L. Norman. C. S. Frazier. J. L. Mackey. H. G. Steeler. C. R. Carr. L. P. Wilson. O. P. Taylor & Son. A. L. Norman. Alonzo Clark Joseph Mulvane & Co. Gray Hardware Co. Samuel Stettler Geo. B. Deardorff & Son.	Feeding team Feeding team Hardware Tree for balance beam. Rubber boots Blacksmithing Traveling expenses Rope Traveling expenses and tel. rent. Rubber boots Paint, oil, etc., for state boat. Wheelbarrows Rubber boots Hardware	\$20 00 20 00 1 00 2 50 3 25 3 40 5 15 10 50 7 20 10 50 14 75 15 50 20 00 23 31

No. of Voucher.	To Whom.	And For What Paid.	Amount.
15 16 17 18 19 20 21 22 23 24	Coshocton Lumber Co D. F. Lash James A. Bell G. W. Hilton Charles H. Geidel Margaret S. Harvey William H. Wilson Zinsmaster & Fisher Samuel Bachtell Charles E. Perkins Pay roll of officers Pay roll No. 1 Pay roll No. 2 Pay roll No. 3 Total for month	Rope, etc. Hardware Rent of Dam to July 12th, 1906. Expenses as supt. Expenses as collector. Expenses as collector. Grass hook and shovel. Traveling expenses as asst. engr. Traveling expenses as chief engr.	23 52 31 95 34 35 75 00 55 05 1 35 2 35 1 10 6 80 15 00 269 16 451 20 308 25 123 00
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24	L. P. Wilson	Incidental expenses 6 mos. telephone service, supt.'s office Hardware supplies Rubber boots Wheel barrows Rope, hoe, nails. Services rendered Hardware supplies Expenses as supt. Services rendered Traveling expenses as chief engr.	
•.	Total for month		\$1,803 53

No. of Voucher.	To Whom.	And For What Paid.	Amount.
1 2 3 4 5 6 7 8 9 10 11 12 13 14	L. P. Wilson. A. L. Norman. W. H. Wilson. M. S. Harvey. W. A. Emerson. D. F. Lash. L. P. Wilson. C. S. Frazier. A. H. Thomson & Son. E. J. Neff. A. H. Compton. H. A. Smith. C. H. Geidel. Charles E. Perkins. Pay roll of officers. Pay roll No. 1. Pay roll No. 2. Pay roll No. 3. Pay roll No. 4. Total for month.	Feeding team Telephone rent, feeding team, etc. Expenses as collector Expenses as collector. Timber for Turkey Lock. Rope etc. Traveling expenses, nails, etc Supplies for repairing Dresden lock Cement for Dresden lock. Timber for Tucker's lock. Repairing harness Nails, shovel Expenses as supt. Traveling expenses as chief engr.	\$20 00 24 00 1 50 10 80 1 50 2 00 3 20 11 00 19 96 42 38 7 75 71 56 70 15 00 294 16 419 50 297 50 171 25 122 74
1 2 3 4 5 6 7 8 9 10 11 12 13 14	L. P. Wilson. A. L. Norman. S. C. Detrich. George B. Deardorff & Son R. R. Parcell. L. P. Wilson. J. F. Reiser. J. A. Bell. A. L. Norman. G. W. Hilton. C. H. Geidel. Charles E. Perkins. John Wilson J. N. Kissner. Pay roll of officers. Pay roll No. 1. Pay roll No. 2. Total for month.	Feeding team Feeding team Scythe and snath Hardware Blacksmithing Livery, telephone messages. Cotton, bucket, cement. Hardware supplies Making fill at Clark's bridge. 3 mos. rent Wave Mill Dam Expenses as supt. Traveling expenses as chief engr. Making gates lock No. 20. Driving piling	\$20 00 20 00 1 25 1 75 2 45 2 50 5 08 - 10 90 12 40 75 00 57 60 15 00 50 00 1,645 00 294 16 363 60 289 25
1 2 3 4	L. P. Wilson	August, 1906. Feeding team	\$20 00 20 00 1 15 10 90

No. of Voucher.	To Whom.	And For What Paid.	Amount.
5 6 7 8 9 10 111 -12 13 14 15 16 17 18 19 20 21 22	The I. Crater Co. L. P. Wilson R. Reiser Gleason Lumber Co. Zinsmaster & Fisher Columbus Bolt Works Geo. B. Deardorff & Son. A. L. Norman The I. Crater Co. William Ginnery Al Shoman John Bimeler G. W. Miskimen John Wilson C. H. Geidel. Archie Clark C. M. Hay Charles E. Perkins Pay roll of officers Pay roll No. 1 Pay roll No. 2 Total for month	Freight, drayage, telephone mess. etc. Hardware Lumber Axes Bolts for gates Locks 20 and 21. Rope and oil cloth. R. R. fare, wedges, etc. Hardware Blacksmith work Traveling expenses Piles for bank near Trenton. Lumber for locks 27. Labor on gate for lock 27. Labor on gate for lock 27. Teams Views of the Dresden locks. Traveling expenses as chief engr.	1 05 2 05 2 10 2 13 2 25 2 30 3 19 3 30 4 40 6 65 13 00 31 02 48 92 48 92 50 00 55 05 5 00 294 16 322 70 318 00 \$1,240 01
1 2 3 4 4 5 6 6 7 8 9 10 11 12 13 14 15 16 17 18 19	L. P. Wilson. A. L. Norman. M. S. Harvey. W. H. Wilson. W. U. Tel. Co. D. F. Lash. Geo. B. Deardorff & Son. A. H. Thompson & Son. L. Stemple Coshocton Hardware Co. A. Shoman L. P. Wilson. F. W. Wise.	September, 1906. Feeding team Feeding team Expenses as collector. Expenses as collector. Telegraph service Ladder Pick handles, rope. Cement for Turkey lock slides. Blacksmith work Rope and express Traveling expenses Telephone rent, etc. Blacksmith work Blacksmith Expenses as supt. 3 mos. rent of telephone. Jurors' fees in Dobson case. Cleaning outside cut. Traveling expenses of chief engr.	\$1,240 01 \$20 00 20 00 1 45 2 75 1 00 1 60 2 28 3 25 3 50 3 64 5 90 8 30 17 55 2 40 59 45 3 75 4 50 9 75 15 00 294 16 292 35 273 50 291 80

BOARD OF PUBLIC WORKS.

No. of Voucher.	To Whom.	And For What Paid.	Amount.
		October, 1906.	
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	L. P. Wilson. A. L. Norman. M. S. Harvey. A. N. Compton & Co. R. R. Parcell. L. P. Wilson. Adams & Gleason. A. Clark Geo. B. Deardorff & Son. S. Stemple James A. Bell. C. E. Camp. Charles H. Geidel. G. W. Hilton. Wible-Enck Co. Walter Shore C. E. Perkins. Pay roll No. 1. Pay roll No. 2. Total for month.	Feeding team Telephone rent and feeding team. Expenses as collector	\$20 00 23 00 9 17 1 05 1 65 1 75 2 64 5 50 6 05 6 75 18 40 30 00 58 55 75 00 141 37 3 40 15 00 294 16 297 30 196 62
,		November, 1906.	
1 2 3 4 5 6 7	L. P. Wilson. A. L. Norman. W. H. Wilson. M. S. Harvey. C. H. Klein. L. P. Wilson. Geo. B. Deardorff & Son. Samuel Stettler C. E. Camp. Brucks & Adams.	Feeding team Feeding team Expenses as collector Expenses as collector 1 scythe snath Traveling expenses Paint, brushes, oil, nails, axes and handles 2 pairs hip boots Livery 7 sq. asbestos roofing for tool house	\$20 00 20 00 4 10 7 15 60 5 50 6 57 9 00 15 50
11 12	Charles H. Geidel	Expenses às supt	56 75 15 00 294 16 191 35- 97 50
	Total for month		\$764 18:

ABSTRACT OF MONEY PAID.

By Harry R. Morris, Superintendent Sub-Divisions Nos. 3 and 4, Grand Division No. 2, Ohio and Erie Canal, for Material and Labor for the Maintenance and Repair of the Public Works.

No. of Voucher.	To Whom.	And For What Paid.	Amount.
1 2 3 4 5 6 7 8 9 10 11 12 13 14	S. M. Brown. Alex. Richardson W. H. Kirkendall. C. W. Watkins W. H. Kirkendall. H. R. Morris. George Maybolt Henry O. Norris. George Keiser A. Bender Climax Livery Barn Charles E. Perkins. Samuel Bachtell F. W. Schaub. Pay roll of officers. Pay roll No. 1. Pay roll No. 2. Pay roll No. 3. Total for month.	Traveling expenses as chief engr. Traveling expenses as asst. engr. Messenger service	\$10 00 12 40 16 25 42 00 8 00 53 80 5 60 11 85 14 70 7 50 17 00 7 50 5 00 10 50 251 66 150 00 398 36 137 37
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	S. M. Brown. Alex. Richardson W. H. Kirkendall. C. W. Watkins. W. H. Kirkendall. Harry R. Morris. Quinby Climer George H. Frickardt. W. H. Albough Clarence Shatteen Charles E. Perkins J. L. Brown. H. C. Burdett. T. M. Lynn. J. S. Mosgrove F. W. Schaub. Pay roll of officers. Pay roll of officers. Pay roll No. 1. Pay roll No. 2. Pay roll No. 3.	Feeding state horse Feeding state horse and expenses. Feeding state horse and expenses. Feeding state team and expenses. Expenses as collector Expenses as supt Merchandise Merchandise Livery Labor as per contract Traveling expenses as chief engr. Livery Lumber Livery Bonding services Messenger service	\$10 00 12 50 15 50 22 00 9 15 66 75 1 22 4 60 19 00 10 00 8 00 12 00 11 34 3 00 14 56 6 70 251 66 205 66 20

No. of Voucher.	To Whom.	And For What Paid.	Amount.
		February, 1906.	
1 2 3 4 5 6 7 8 9	S. M. Brown. Alex. Richardson W. H. Kirkendall. C. W. Watkins. W. H. Kirkendall. Harry R. Morris. Drone & Son. Geo. W. Bauder & others. The Tracy Shoe Co. Charles E. Perkins. Pay roll of officers. Pay roll No. 1. Pay roll No. 2. Pay roll No. 3.	Feeding state horse and expenses. Feeding state horse and expenses Feeding state horse and expenses. Feeding state team and expenses. Expenses as collector. Expenses as supt. Blacksmithing Services as commissioners. Rubber boots Traveling expenses as chief engr.	\$12 65- 12 15- 13 50 22 00 6 25- 49 69- 1 50 15 00- 12 33- 8 00- 251 66- 100 00- 75 50- 251 00-
	Total for month		\$831 23
		March, 1906.	
1 2 3 4 5 6 7 8 9 10 11 12 13 14	S. M. Brown. Alex. Richardson W. H. Kirkendall. C. W. Watkins W. H. Kirkendall. H. R. Morris. James W. Kelly. J. A. Breinig. George Keiser The New Climax Livery. Mendenhall Bros. & Guth. Charles E. Perkins. Charles W. Diehl. W. H. Stoker. Pay roll of officers. Pay roll No. 1 Pay roll No. 2 Pay roll No. 3.	Feeding state horse and expenses. Feeding state horse and expenses. Feeding state horse and expenses. Feeding state team and expenses. Expenses as collector. Expenses as supt. Labor per contract. Hardware Blacksmithing Livery Hardware Traveling expenses as chief engr. Services as per bill. Livery	\$12 10 12 10 15 00 36 40 8 50 63 70 12 00 8 65 13 75 8 00 8 00 8 00 4 00 231 66 113 00 77 00 247 50
	Total for month		\$883 01
		April, 1906.	
1 2 3 4 5 6 7 8 9	C. W. Watkins	Feeding state horse and expenses. Feeding state horse and expenses. Feeding state horse and expenses. Feeding state team and expenses. Expenses as collector. R. R. fare. Expenses as supt. Nails Hardware	\$13 25 23 13 15 98 34 10 9 00 7 00 63 75 1 62 3 79

No. of Voucher.	To Whom.	And For What Paid.	Amount.
10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27	Jacob Eitel C. Beuford & Son. Hibbs Hardware Co. J. S. Oxley. Drone & Son. Matthew Taffe, Jr. John A. Williamson. Carry Brown George Weidinger George Stout Lou Fisher W. W. Metzger. Albert Burk J. H. Oty. Clarence Shasteen W. H. Stoker, Agt. T. M. Lynn. Charles E. Perkins. Pay roll of officers. Pay roll No. 1 Pay roll No. 2 Pay roll No. 3 Pay roll No. 4 Pay roll No. 5 Pay roll No. 6 Total for month.	Wheelbarrow Hardware Wheelbarrows Harness Blacksmithing Blacksmithing Lumber and nails. Timber Timber and lumber. Sawing lumber Steamer for inspecting tour. Team work as per contract. Team work as per contract. Labor as per contract. Livery Livery Traveling expenses as chief engr.	1 75 39 94 36 00 9 35 15 50 10 28 8 60 32 77 129 75 8 74 10 00 7 50 4 50 2 00 4 50 2 00 6 00 8 00 6 00 8 00 6 00 8 00 385 50 353 24 51 00
13 14 15 16 17 18 19 20	J. C. Hewitt	May, 1906. Feeding state horse and expenses. Feeding team and expenses. Making fill and rip-rapping Team work Bale oakum and freight Expenses as collector Expenses as supt Rubber boots Blacksmithing Harness repairs, etc. Lumber Lumber Saw logs Saw logs Lumber Hardware Hardware Hardware Hardware Hardware Spring seat	\$10 68 31 00 30 11 34 65 250 00 7 00 4 50 4 75 67 65 5 50 18 85 2 90 79 54 59 62 163 38 9 06 33 75 173 50 10 87 14 39 5 75 2 50

No. of Voucher.	To Whom.	And For What Paid.	Amount.
23 24 25 26 27	Pay roll No. 2		10 00 35 00 16 50 10 00 57 89 256 66 252 25 1,214 25 382 12 678 37 114 24
1 2 3 4 5 6 7 8 9 10 112 13 14 15 16 17 18 19 22 23 22 25 26 27 28	Jacob Brunner J. A. McLaughlin & Bros. Charles Schwarz J. Wolf & Son. George Stout Jacob Leist Frank Hoffman Patterson & Rader J. C. Hewitt Reed & Marshall The Courier Co. The Union Coal Co. Pickaway Cement Co. J. F. Perry.	Lumber Lumber Printing notices Lime Cement Cement Brick Using scrapers as per contract. Traveling expenses as chief engr.	\$10 55 12 30 27 22 33 25 4 00 60 30 3 50 34 00 22 56 2 85 16 25 20 00 7 50 6 10 35 32 60 50 60 50 46 48 6 80 2 12 3 20 108 75 10 00 2 77 4 50 2 00 10 00 256 66 551 75 132 37 1,414 62 59 37 651 75

No. of Voucher.	To Whom.	And For What Paid.	Amount.
1 2 3	S. M. Brown	July 1906. Feeding horse and expenses Feeding horse and expenses Feeding 2 horses and expenses	\$12 70 14 45 32 05
4 5 6 7 8 9	C. W. Watkins W. H. Kirkendall. H. R. Morris W. H. Stoker, Agt W. H. Albaugh & Co Reed & Marshall Phillip Herrnstein	Feeding team and expenses Expenses as collector Expenses as supt Livery Lumber Lumber	33 50 5 00 62 45 14 00 6 00 49 62 55 59
11 12 13 14 15 16	Showalter & Bowman C. Beuford & Son A. Bender J. W. Drone & Son Pickaway Cement Block Co J. E. Mick Charles W. Diehl	Blacksmithing and hardware Hardware	1 80 7 70 3 25 3 25 52 00 9 36 35 00
18	Chas. E. Perkins	Traveling expenses as chief engr.	10 00 256 66 456 50 1,119 62 313 25
	Total for month	August, 1906.	\$2,533 75
1 2 3 4 5	S. M. Brown	Feeding horse and expenses Feeding horse and expenses Feeding horse and expenses Feeding team and expenses Expenses as collector	\$13 50 14 00 19 95 38 60 5 00 59 48
7 8 9 10 11 12	Charles W. Rutherford Carry Brown	Expenses as supt	10 50 7 00 1 10 12 45 6 49 4 35
13 14 15 16 17	J. A. Breinig	Blacksmithing	10 80 4 22 1 10 11 00
18 19	Henry O. Norris Sterling Planing Mill & Lumber Co	Lumber	5 93 49 13
20 21 22 23	Patterson & Rader	Lumber Lumber Traveling expenses as chief engr. Traveling expenses as asst. engr.	68 14 26 00 15 00 70

BOARD OF PUBLIC WORKS

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No. of Voucher.	To Whom.	And For What Paid.	Amount
24	The Ruggles-Gale Co Pay roll of officers Pay roll No. 1 Pay roll No. 2 Pay roll No. 3 Total for month		5 60 256 66 249 50 970 50 306 50 \$2,184 40
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	S. M. Brown. Alex. Richardson W. H. Kirkendall. C. W. Watkins. W. H. Kirkendall. H. R. Morris. R. W. Holenbaugh. Charles Schwartz Oliver Dorsey C. Beuford & Son. Charles Miller C. W. Keuchole. Climax Livery W. H. Stoker. Gehres Bros. Charles E. Perkins. Pay roll of officers. Pay roll No. 1. Pay roll No. 2. Pay roll No. 3. Total for month.	Feeding horse Feeding horse and expenses Feeding horse and expenses Feeding team and expenses Expenses as collector Expenses as supt. Shovels Blacksmithing Lumber Hardware Blacksmithing Veterinary services Livery Luwber Expenses as chief engr. October, 1906.	\$10 00 13 65 14 50 26 45 7 35 49 75 1 30 5 40 10 00 15 08 1 25 1 50 20 00 19 90 14 85 15 00 256 66 219 00 181 37 189 50
1 2	S. M. Brown	Feeding state horse one mo Feeding state horse and other expenses	\$10 0 0
3	W. H. Kirkendall	Feeding state horse and other ex-	19 25
4	C. W. Watkins	Feeding state team and other ex	
5 6 7 8 9 10 11 12	Jacob Eitel	penses Expenses as collector Expenses as supt. Shingles, etc. Nails Livery Hardware Traveling expenses as asst. engr. Traveling expenses as chief engr.	30 30 21 00 63 35 27 40 2 25 16 00 1 30 1 50 256 66

ANNUAL REPORT

No. of Voucher.	To Whom.	And For What Paid.	Amount.
	Pay roll No. 1	November, 1906.	107 00 239 50 160 50 \$985 11
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	S. M. Brown. Alex. Richardson W. H. Kirkendall. C. W. Watkins. H. R. Morris. W. H. Kirkendall. W. H. Kirkendall. Frank Hoffman Schlyer & Barrere. F. M. DeWeese. John Emmitt George Keiser C. A. Hertenstein & Co. W. H. Stoker, Agt. J. W. Drone & Son. A. Bender Samuel Bachtell Charles E. Perkins. Officers pay roll Pay roll No. 1 Pay roll No. 2 Pay roll No. 3. Total for month.		\$13 40 33 85 14 00 36 15 61 45 8 05 33 60 23 37 2 25 19 58 40 00 8 90 167 82 10 00 2 50 1 10 1 50 15 00 256 66 100 00 316 75 148 25

ABSTRACT OF MONEY PAID.

By Harry R. Morris, Superintendent Sub-Division No. 4, Grand Division No. 2, Ohio and Erie Canal, for Material and Labor for Repairing Stony Fork Aqueduct.

No. of Voucher.	To Whom.	And For What Paid.	Amount.
1	H. C. Burdett	January, 1906.	\$21 29
.	Total for month		\$21 29

ABSTRACT OF MONEY PAID.

By Harry R. Morris, Superintendent Sub-Division No. 3, Grand Division No. 2, Ohio and Erie Canal, for Material and Labor, Repairing Banks at Buckeye Lake.

No. of Voucher.	To Whom.	And For What Paid.	Amount.
1	Thomas Randell	January, 1906. Piling	\$10 00 \$37 75
1	Henry O. Norris		\$4 68 56 25 \$60 93
	1	April, 1906.	\$51 75 \$51 75

ANNUAL REPORT

No. of Voucher.	To Whom.	· And For What Paid.	Amount.
	•	May, 1906.	
1 2 3 4 5 6 7 8 9	A. Bender Spitler Bros. Showalter & Bowman. Charles V. Walker T. H. Randall. Buckeye Planing Mill. Pence & Swisher. Henry Geiger Del Fisher Boat Line Co. Charles Korzenborn Brg.	Blacksmithing Hardware Hardware Hardware Piling Lumber Lumber Lumber	\$3 50 3 81 8 60 34 7 00 1 97 85 96 35 5 00
•	Co	Buoyes	12 50
11 12	H. Mithoff & Co Oliver Dorsey Pay roll	HardwareLumber	12 45 9 89 193 00
	Total for month		\$355 26
		August, 1906.	
1 2 3	Henry O. Norris Crane-Bliss Hardware Co Pay roll No. 1		\$58 70 8 60 14 46 157 50
	Total for month		\$239 26
	·	October, 1906.	
1	Henry Geiger	Lumber	\$33 53
2	Henry O. Norris Pav roll		67 56 317 65
	ay 1011]-	
	Total for month		\$418 74
		November, 1906.	
1		Cement and lumber	\$139 20
$\frac{2}{2}$	B. L. Hawke		100 39
3	John A. Spurgeon	Freight on lumber and tools to Buckeye Lake	. 1 05
4		Hardware	22 57
5		Lumber	26 46 4 50
6. 7	George Maybolt Benadum & Peters	1 pr. rubber boots	4 80
	B. L. Hawke	Broken stone furnished	27 26
1	Pav roll No. 1		402 72 193 67
	Total for month	ļ-	\$922 62

ABSTRACT OF MONEY PAID.

Improvement Northern Division Ohio Canal, between Cleveland and Dresden, as provided by an Act of the Seventy-Seventh General Assembly of Ohio, by J. A. Hanlon, Engineer.

		, ·		
No. of Voucher or Estimate.	To Whom.	And For What Paid.	Amount	t.
		May, 1906.		
1 2	Clifton Bros., Dresden, O. Economy Drawing Table	Estimate No. 3, Outlet lock	\$4,164	90
3	Co., Toledo, Ohio J. C. Mercer & Co., Cleve-	Drawing table for Akron office		48
4 5	land, Ohio	Level and rod for Akron office Supplies for Akron office	112 38	00 28
6	Ohio	Supplies for Akron office	31	38
0	Ohio	Hardware for survey party, Walhonding survey		80
7	Gray Hardware Co., Coshocton, Ohio	Hardware for survey party, Wal-	,	75
8	L. W. Pocock, Coshocton, Ohio	honding survey	1	10
9	Gunther Planing Mill Co., Coshocton, Ohio	honding feeder Boat and stakes for Walhond-	28	25
10 11 12	Clay Miller, Roscoe, Ohio. J. A. Hanlon, Coshocton, O. G. W. Crise, Buckeye City,	ing survey. Team work, Walhonding survey. Expense account, N. Div	. 3	38 00 30
	Ohio	Expense account, Walhonding survey	28	55
13	J. A. Hanlon and others	Pay roll, May	626	
	Total for month		\$5,143	57
		June, 1906.		
.1	Clifton Bros., Dresden, O M. O'Neill & Co., Akron, O.	Estimate No. 4, Outlet lock Supplies for Engineer's office,	\$3,275	10
3	Summit Lumber Co., Ak-ron, Ohio	Akron	. 32	15
4	Harter & Milar, Akron,	neer's office	51	10
- 1	Ohio	Hardware for Engineer's party	1	83
5	Akron, Uhio	Supplies for boat	1	56
6	J. G. Knapp, Akron, Ohio.	Blue print bath pan, Engineer's office		75
8	J. A. Hanlon	Expense account, June Engineers and inspectors	67 784	82 90
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No. of Voucher or Estimate.	To Whom.	And For What Paid.	Amount.
9	J. M. Crawford and others P. T. McCourt	Expense account	9 00 9 50
	Total for month		\$4,233 81
		July, 1906.	
1	Clifton Bros., Zanesville, O.	Estimate No. 5, Dresden locks contract	\$1,649 66
2	Clifton Bros., Zanesville, O.	Extra bills, labor and material, Dresden locks contract	287 39
5	Geo. B. King, Dresden, O C. S. Frazier, Dresden, O.	Gravel for Dresden locks Supplies for Dresden locks	4 60 . 65
6 7	C. S. Frazier, Dresden, O. John Miller, Roscoe, O A. H. Thomson & Son,	Freight paid on cement	3 15
8	Coshocton, Ohio Coshocton Lumber Co., Co-	Cement for Dresden locks	137 30
	shocton, Ohio	Lumber for concrete forms, Dresden locks	6 55
9	Pemchat—Hunsicker Co., Akron, Ohio	Supplies for engineer's office,	. 0 00
10	The M. O'Neill Co., Akron,	Akron	3 25
10	Ohio	Supplies for engineer's office, Akron	7 FO
11	The Cleveland Blue Print		7 58
12	Co Tribune Co.,	Supplies for engineer's office	1 50
10	Cincinnati, Ohio	Advertising for proposals, lock work and cement	7 97
13	American Contractor, Chicago, Ill.	Advertising for proposals, lock	
14	Scioto Gazette Co., Chilli-	work and cement	27 54
	cothe, Ohio	Advertising for proposals, lock work and cement	13 13
15	Akron Times-Democrat, Akron, Ohio	Advertising for proposals, lock	
16	Coshocton Daily Times	work and cement	10 40
17	Plain Dealer Pub. Co.,	work and cement	8 75
18	Cleveland, Ohio Engineering News, New	Advertising for proposals	10 40
	York	Advertising for proposals, lock work and cement	36 90
19	The Signal Co., Zanesville,		00 00
20	The Toledo Blade Co., To-	work and cement	10 30
20	ledo, Ohio	Advertising for proposals, lock	7 00
	ı	work and cement	7 98

BOARD OF PUBLIC WORKS.

No. of Voucher or Estimate.	To Whom.	And For What Paid.	Amount.
21	The Westbote & Express, Columbus, Ohio	Advertising for proposals, lock	
22	The Age Publishing Co., Coshocton, Ohio	work and cement	7 57
23	The Age Publishing Co.,	work and cement Printing specifications Ohio Ca-	8 74
24 25 26	Coshocton, Ohio P. T. McCourt, Akron, O W. L. Bender, Akron, Ohio J. A. Hanlon, Coshocton, O	nal work Livery for engineer's party Expense account, surveys. Exnense account—board, tramp, supplies	31 65 14 50 19 65 60 94
27	Pay roll No. 1, John Han-	· · · ·	
28	lon and others Pay roll No 2, A. Showman	Engineer's Akron	874 00
29	man and others Pay roll No. 3, J. A. Gehres	Repair Dresden Locks	216 25
30 31 32	and others	Survey for New Reservoir Livery for J. A. Gehres Boarding J. A. Gehres' party	260 00 33 25 32 50
33	The Hankey Lumber Co., Akron, Ohio Kraus-Kirn Co., Akron, O.	Stakes for J. A. Gehres' party Labor and material, Engineer's office, Akron	15 25 13 59
	Total for month		\$3,822 89
		August 1906.	
1 2 3	J. A. Hanlon and others A. Showman and others J. A. Gehres and others	Pay roll No. 1	\$752 50 129 25 335 00
4	Wash Carpenter and others	Pay roll No. 4, State repair	480 09
5 6 7	W. L. Bender	Personal expenses	60 93 33 60
. 8	McGary & McGowan	2, Sect. I Estimate No. 1, locks Nos. 20	271 62
10 11 12	P. T. McCourt	and 21, Sect. IV	259 74 52 70 288 53 181 50
13	Summit Lumber & Bldg.	Akron	116 66
14 15 16		Material for Supt. Hatch	30 73 8 09 110 00 24 00

Abstract of Money Paid — Continued.

No. of Voucher or Estimate.	To Whom.	And For What Paid.	Amount.
17 18 19 20 21 22 23 24 25 26 27 28 29	Underwood Typewriter Co. B. L. Dodge	and cement work	92 25 18 00 6 75 5 75 2 40 15 38 24 31 32 50 42 00 10 40 16 78 11 25 6 90 7 58
		September, 1906.	
4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25	S. W. Parshall. McGarry & McGowan. J. N. Kissner. McGarry & McGowan. Pay roll No. 1. Pay roll No. 2. Pay roll No. 3. Atlas Portland Cement Co. Peterson & Wright. U. G. Frederick Lumber Co. American Sewer Pipe Co. Summit Lumber Co. Crowell & Peck. American Contr. Co. German-Amer. Pub. Co. J. J. Bast. Hardware Supply Co. Am. Scrap Iron Co. W. H. Smith. Myers Bros. Taplin, Rice & Co. J. C. Miner & Co. Massillon Lumber Co. S. A. Conrad & Co. Nichter Bros. Central Union Tel. Co.	Sept. estimate, Sec. 3. Sept. estimate, Sec. 6. Sept. estimate Lock 16, Trenton Extra work, locks 20 and 21. J. A. Hanlon and others. J. A. Gehres and others. W. Carpenter and others. Sept. estimate, cement contract. Cement furnished at Akron. Lumber for sheds, etc. Sewer pipe Mud Run culvert. Lock culvert frames. Cement testing Advertising Walhonding Dam. Advertising Walhonding Dam. Livery for field party. Supplies for spillway bridge. Rail for spillway bridge and locks. Stakes Hardware Castings and machine work. Repairs insts. Stakes Hardware Livery Telephone service and tolls.	\$1,828 62 2,118 41 2,006 28 643 50 125 00 1,105 00 310 00 618 22 4,180 95 489 82 195 48 132 00 87 81 15 50 9 18 4 00 16 50 4 50 37 25 3 00 49 51 2 38 11 60 2 50 4 00 14 95 4 31

BOARD OF PUBLIC WORKS.

No. of Voucher or Estimate.	To Whom.	And For What Paid.	Amount.
29 30 31 32 33 34 35 36 37 38 39 40 41 42 43	Plain Dealer Pub. Co Commercial Tribune Co B. E. Albertson A. Adamson Harter & Milar Forman, Bassett & Hatch Leader Printing Co Toledo Blade Co M. O'Neill & Co Kraus & Kirn P. T. McCourt J. A. Hanlon W. J. Bender and others Jackson Bros. Cantwell Shoe Co Samuel Parmer	Advertising Walhonding Dam Boarding Gehres' party Iron and machine work Hardware File case Advertising Walhonding Dam Advertising Walhonding Dam Supplies for engrs, office Plumbing and supplies Livery Expense account, Sept Expense account, Sept Livery for Gehres' party Rubber boots for 6 mile dam inspector	4 78 4 32 35 00 7 25 45 63 5 50 4 46 4 73 19 15 47 00 28 50 84 70 42 15 33 25 9 00 25 00
	Total for month	October, 1906.	\$14,421 29
1 2 3	P. T. McCourt	Livery bill, engineers	\$1,397 07 18 50
4 5	S. W. ParshallS. W. Parshall	and Oct	100 00 1,384 07 300 00
6 7 8 9 10	McGarry & McGowan McGarry & McGowan Jas. J. McGowan J. N. Kissner Clifton Bros.	Allowance extra bill, locks 20-21. Estimate No. 1, Mud Run culvert. Estimate No. 2, Lock 16, Trenton.	2,470 68 139 35 539 00 2,466 00
11	Atlas Portland Cement Co.		4,600 70
12 13 14 15 16 17 18	American Sewer Pipe Co U. G. Frederick Lumber Co. Osborn Engineering Co The Young Co Wm. Snider M. O'Neill Co C. A. McNary	Pipe for Mud Run culvert	33 00 24 00 87 00 57 00 112 50 14 43
19 20	Peterson & Wright Bowers-Conkle Lumber Co.	Cement for Mud Run culvert Lumber for dams at Mud Run	54 45
21	Harry J. Lewis	culvert Services consulting engrs., 6 mile and Miami dams	207 98 182 00

ANNUAL REPORT

No. of Voucher or Estimate.	To Whom.	And For What Paid.	Amount.
22	Samuel Shaffer	Blacksmithing for sounding rods,	
23	Akron Plumbing & Heating Co	6 mile dam	3 00
24 25 26 27	Seegrist & Knapp Hankey Lumber Co Crowell & Peck Jackson Bros	lock 1 Labor and material sounding rods. Stakes Sand test Livery for J. A. Gehres' party	1 10 6 96 2 00 1 50 31 50
28 29	L. W. Pocock B. E. Albertson	Livery for work at 6 mile dam, 9 mos	46 50 26 00
30 31 32	Age Publishing Co J. A. Hanlon W. L. Bender	Publishing "Notice to Contractors," 6 mile dam	6 90 139 17 13 20
33	Pay roll No. 1	J. A. Hanlon and others, Oct.	973 50
34 35	Pay roll No. 2 Pay roll No. 3	A. Showman and others, 6 mile dam	79 25
36	Pay roll No. 4	vey, October	297 50 95 37
37 38	Toledo Press Co	Publishing "Notice to Contract- tors," 6 mile dam Publishing "Notice to Contract-	5 40
39	Beacon Journal Co	tors," 6 mile dam	4 72
40	Enquirer Co	Publishing "Notice to Contract- tors " 6 mile dam	7 90 3 93
41 42	Engineering News Co	Publishing "Notice to Contract- tors," 6 mile dam	19 20
43	Williams Foundry Co	tions, 6 mile dam	$\begin{array}{cc} 19 & 00 \\ 2 & 00 \end{array}$
44 45	Akron Democrat Co	Publishing "Notice to Contract- tors," Walhonding dam Services negotiating lands for	7 90
47	Harter & Milar Hankey Lumber Co A. H. Sawyer	reservoir — on acct	100 00 6 15 243 71 125 00
	Total for month		\$16,731 30
		November, 1906.	
$\begin{array}{c}1\\2\\3\end{array}$	P. T. McCourt	Estimate No. 4, Akron Locks Livery engineer's office, Akron EEstimate No. 3, Akron Locks	\$2,609 84 18 00 994 37

No. of Voucher or Estimate.	To Whom.	And For What Paid.	Amount	
4 5 6 7	S. W. Parshall	Allowance on account extra work. Estimate No. 4, Akron Locks Estimate No. 2, Mud Run culvert. Estimate No. 3, Lock 16, Tren-	200 790 516	65. 70
8	Atlas Portland Cement Co.	ton, O	1,795 2,785	ου 05 .
9	U. G. Frederick Lum. Co.	Lumber for bridge at lock 1	46	43
10 11	Alantic Foundry Co Peterson & Wright	Castings for lock gates Cement furnished contractors at	26 117	
12	Peterson & Wright	Akron locks		
13	E. C. Hovey	Gravel and limestone for Mud	54	
14	Hankey Lumber Co	Run culvert	48	
15	American Sewer Pipe Co	reservoir survey		00
16	Samuel Palmer	Run culvert	240	54 00
17	Williams Foundry Co	Date letters for Akron locks		40
18	Ben Albertson	Board bill, Gehres' survey and B. P. W.	23	25
19	H. Myers	Repairs of tools state gang work, lock 1	5	00
20	Jackson Bros	Livery for Gehres' survey of res-		
21	Hardware Supply Co	ervoir locks	10	50· 08
22	Williams Foundry Co	Bolts for lock work	_	00
23	W. A. Karns	Publishing "Notice to Contractors," Walhonding dam	_	50
24	American Contr. Pub. Co	Publishing "Notice to Contract- ors," Walhonding dam		72 ⁻
25	John Englander	Foundation timber for lock 10	140	
26	Kraus-Kern Co	Labor and material on gas pipe line, office lock 1	30	
27	M. O'Neill Co	Supplies for engineer's office	11	
28	W. G. Johnston	Allowance agent negotiating pur-	100	^^
29	J. A. Hanlon	chase Res. land Expense account, November	100 85	
30	Pay roll No. 1	J. A. Hanlon and others	971	
31	Pay roll No. 2	J. A. Gehres and others	232	
32	Pay roll No. 3	John Wilson and others	180	50 ·
33	Pay roll No. 4	George Wallace and others	21	00-
•	Total for month		\$12,090	45.

ABSTRACT OF MONEY PAID.

By Charles Cooper, Superintendent Sub-Division No. 1, Grand Division No. 3, Miami and Erie Canal, for Material and Labor for the Maintenance and Repair of the Public Works.

No. of Voucher.	To Whom.	And For What Paid.	Amount.
•		December, 1905.	
1 2 3 4 5 6 7 8	W. A. Gregg. J. W. Sullivan. E. C. Booth. Charles Cooper J. W. Sullivan. James Aylward J. W. Gorman. Fred Blursch Henry F. Eyler.	Expense account Expense account Expense account Expense account Rent for collector at Lockland Rent for locktender at Lockland. Rent for locktender at Crescent- ville Feeding state boat team No. 1, etc. Feeding state boat team No. 2, etc.	\$2 00 2 00 2 30 59 15 8 34 8 00 6 00 23 50 21 50
10	Cincinnati Bell Tel. Co	Telephone for canal office, Cincin- nati	21 25
11 12 13	Pay roll of officers Pay roll No. 1 Pay roll No. 2 Pay roll No. 3	Travelling expenses as chief engr. Messenger services Typewriting services	8 00 10 50 15 75 554 17 207 50 158 48 50 00
	Total for month		\$1,158 44
İ		January, 1906.	
1 2 3 4 5 6	J. W. Sullivan E. C. Booth Charles Cooper J. W. Sullivan James Aylward	Expense account Expense account Rent for canal collector at Lockland Rent for locktender at Lockland	\$1 55 1 40 1 47 65 95 8 34 8 00
7 8 9 10 11 12 13 14 15 16	Kohmescher & Co Cincinnati Traction Co Samuel Bachtell Charles E. Perkins J. S. Mosgrove, Agt W. H. McClintock F. W. Schaub Pay roll of officers. Pay roll No. 1 Pay roll No. 2	Feeding state boat team No. 2, etc.	6 00 23 00 26 25 11 25 9 92 8 50 8 30 21 60 10 00 6 66 509 17 167 25 97 25

No. of ·Voucher.	To Whom.	And For What Paid.	Amount.
	Pay roll No. 4		50 00 \$1,116 86
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	W. A. Gregg. J. W. Sullivan. E. C. Booth. Charles Cooper J. W. Sullivan. James Aylward J. W. Gorman. Fred Blursch Henry F. Eyler. Cin. & Sub. Bell Tel. Co. John Muller Miamisburg Lumber Co. Cinti. & Sub. Be Tel. Co. Charles E. Perkins. A. H. Sawyer. Pay roll of officers. Pay roll No. 1. Pay roll No. 2. Pay roll No. 3. Pay roll No. 4. Total for month.	Expense account Expense account Expense account Expense account Expense account Rent for collector at Lockland. Rent for locktender at Lockland. Rent for locktender, Crescentville. Feeding state boat team No. 1, etc. Feeding state boat team No. 2, etc. Telephone collector's office, Lockland Coal Lumber Telephone Travelling expenses as chief engr. Services rendered	\$1 82 1 20 1 47 61 25 8 34 8 00 6 00 22 60 23 05 7 45 3 75 24 60 16 24 8 00 12 50 509 17 167 25 92 00 75 00 50 00
	Total for month	March, 1906,	41, 099 09
1 2 3 4 5 6 7	W. A. Gregg. J. W. Sullivan. E. C. Booth. Charles Cooper J. W. Sullivan. James Aylward J. W. Gorman.	Expense account Expense account Expense account Expense account Rent for collector at Lockland. Rent for locktender at Lockland.	\$4 08 1 20 2 10 61 87 8 34 8 00 6 00
8 9 10 11 12 13	Henry F. Eyler		20 90 22 65 1 95 3 35 9 00 8 00 509 17 167 25 125 00 75 00

No. of Voucher.	To Whom.	And For What Paid.	Amount.
,	Pay roll No. 4	April, 1906.	50 00 \$1,085 86
	Charles E. Denny John Muller Review Publishing Co John Muller James K. Aylward Emil H. Guth Cin. Bell. Tel. Co. John Rebor John S. Spaerl Samuel Bachtell W. E. Thompson Charles E. Perkins Fred R. Smith J. W. Gorman Pay roll of officers Pay roll No. 2. Pay roll No. 3.	Expense account Expense account Expense account Expense account Rent for collector at Lockland. Rent for locktender at Lockland. Rent for locktender at Crescent- ville Feeding state boat team No. 1, etc. Feeding state boat team No. 2, etc. Stamps, day book and expressage. Lumber Coal Printing Cement Blacksmithing Blacksmithing Collector's office at Cincinnati. Harness Hardware Travelling expenses as asst. engr. Travelling expenses as secretary. Travelling expenses as chief engr. Livery Labor	\$1 00 2 95 3 40 61 50 8 34 8 00 6 00 23 90 24 05 14 15 16 28 26 25 2 50 45 15 15 55 12 20 10 60 6 73 8 85 10 75 15 00 49 50 3 50 50 50 50 50 50 50 50 50 50 50 50 50 5
2 3 4 5	I. W. Sullivan	May, 1906. Expense account	\$2 51 1 90 4 20 63 80 8 34 8 00
8 9	Fred Blursch	Feeding state boat team No. 1, etc. Telephones at Lockland	24 10 22 27

No. of Voucher.	To Whom.	And For What Paid.	Amount.
10 11 12 13 14 15 16 17 18	J. W. Gorman. Emil H. Guth. J. R. Skinner. John Heuermann Hamilton Supply Co. Frank Koehler Charles Cooper Charles E. Perkins. C. B. Urischel. H. F. Eyler. Pay roll of officers. Pay roll No. 1. Pay roll No. 2. Pay roll No. 3. Pay roll No. 4. Total for month.	Teaming and labor. Blacksmithing Blacksmithing Sacks Supplies for dredge No. 6. Hardware Livery Travelling expenses as chief engr. Supplies furnished Keeping	14 75 9 45 3 05 1 25 10 29 58 80 82 75 10 00 10 14 20 00 534 16 329 48 75 00 37 03 317 00
17 18 19 20 21 22 23	Fred Maag E. C. Booth. J. W. Sullivan. R. V. Denny. Charles Cooper Fred Blursch Henry F. Eyler J. W. Sullivan. James Aylward J. W. Gorman. Frank Koehler Jomes Bohmer Charles Cooper John Class Joseph T. Kaline. Carrie Strawser Levy & White. Levy & White. Levy & White. Levy & White. Lockland Lumber Co. John Snyder Charles E. Perkins. Pay roll No. 1. Pay roll No. 2. Pay roll No. 3. Pay roll No. 3. Pay roll No. 4.	June, 1906. Expense account Expense account Expense account Expense account Expense account Feeding state boat team No. 1, etc. Feeding state boat team No. 2, etc. Rent for collector at Lockland. Rent for locktender at Lockland. Rent for locktender at Crescent- ville Hardware Hardware, plumbing and labor. Horse and buggy. Blacksmithing Blacksmithing Blacksmithing Hire wagon Desk and chair. Key and lock Collector's office at Cincinnati. Labor Lumber Teams Travelling expenses as chief engr.	\$2 60 2 60 3 85 66 55 25 20 21 65 8 34 8 00 6 00 62 75 2 40 20 00 3 25 6 00 5 00 33 25 11 20 273 08 15 00 579 17 304 74 283 99 139 08 75 00
	Total for month	 	\$2,007 05

		•	
No. of Voucher.	To Whom.	. And For What Paid.	Amount.
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 22 23 24 25 26 27 28 29 30 31 32 33	Fred Maag J. W. Sullivan E. C. Booth. R. V. Denny. Charles Cooper Charles Cooper J. W. Sullivan. James Aylward J. W. Gorman. Fred Blursch Henry F. Eyler. F. E. Marlin. W. T. Johnson Emil H. Guth. J. & M. Rosenberger. W. H. Mullally. Mrs. Mollie Seely. Fred R. Smith. Fred R. Smith. Charles E. Denny. Morrison & Snodgrass Co. Grove & Weber Co. Roth & Co. C. C. Fouts. John Ryling & Son. Brown & Varney. Kohmescher & Co. James Heuermann Fox Paper Co. Thomas S. Harkness Co. Bevis & Shortte. Charles Weaver Charles Weaver Charles E. Perkins. Pay roll No. 1. Pay roll No. 2. Pay roll No. 3. Pay roll No. 4. Total for month.	Expense account Expense account Expense account Expense account Expense account Expense account Use of horse Rent for collector at Lockland Rent for locktender at Lockland Rent for locktender at Crescent- ville Feeding state boat team No. 1, etc. Feeding state boat team No. 2, etc. Blacksmithing Hardware Blacksmithing Papering office at Cincinnati Papering state house, Cincinnati Meals and lodging Teams, gravel and cement Livery Lumber Lumber Hardware Hardware Hardware Hardware Hardware Hardware Cutting rivets from girder Watching expenses as chief engr	\$2 00 1 20 2 40 8 80 60 70 20 00 8 34 8 00 6 00 32 00 30 30 2 65 1 79 6 05 23 00 6 10 73 50 110 30 22 50 307 57 3 00 13 98 4 19 60 16 45 22 00 1 25 17 4 45 5 25 17 10 5 4 25 17 333 61 57 333 61 57 30 534 16 513 87 75 00 210 86 \$2,679 12
5	J. W. Sullivan	August, 1906. Expense account Expense account Expense account Rent for collector at Lockland Rent for locktender at Lockland Rent for locktender at Crescent-ville	\$2 40 1 10 2 40 61 90 8 34 8 00

No. of Voucher	To Whom.	And For What Paid.	Amount.
8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27			20 00 28 80 24 00 30 06 24 65 17 50 9 50 15 85 31 50 7 50 54 25 114 50 80 48 50 29 05 180 00 75. 3 15. 15 00 62 50 54 45 180 75 180 75
13	J. W. Sullivan. James Aylward J. W. Gorman. Emil H. Guth John Sawyer William Sheely Fox Paper Co.	Feeding state boat team No. 2, etc. Rent for collector at Lockland Rent for locktender at Lockland Rent for locktender at Crescent- ville	61 30 20 00 24 20 31 25 8 34 8 00
15 16 17 18 19	Fred R. Smith	Teaming and livery	61 70 64 50 8 75 10 00 17 50

No. of Voucher.	To Whom.	And For What Paid.	Amount.
22 23 24 25	Fred Smith J. W. Gorman L. Schreiber & Sons Samuel Bachtell Pay roll of officers Pay roll No. 1 Pay roll No. 2 Total for month	Livery Labor performed Iron Traveling expenses as asst. engr.	49 50 3 50 635 04 8 00 544 16 429 87 433 62 \$2,646 34
		October, 1906.	
1 3 4 5 6	E. C. Booth. J. W. Sullivan. Charles Cooper Charles Cooper J. W. Sullivan. James Aylward J. W. Gorman.	Expense account Feeding and stabling horse Rent for canal collector, Lockland. Rent for lock tender, Lockland Rent for lock tender, Crescent-	\$2 00 80 61 60 20 00 8 34 8 00
:8	Fred Blursch	ville Feeding state boat team No. 1 and car fare for men	6 00
9	Henry F. Eyler	Feeding state boat team No. 2 and car fare for men	23 95
10 11	Charles Haas	Watching flume at Lesourdsville. Watching dredge No. 4 at Mi-	62 00
12	Cincinnati Bell Tel. Co	amisburg Telephone for collector's office,	54 25
13 14 15 16 17 18 19	A. Wuettisbach Frank Koehler F. M. Martin Charles E. Denney Allegheny Chemical Co Pittsburg Chemical Co Philip Cary Mfg. Co	Cincinnati Repairing collector's office, Cinti. Hardware Work on Lesourdsville aqueduct Lumber Boiler compound Oil Tar roofing and supplies for dredge No. 6.	15 75 20 65 28 09 80 39 87 92 36 02 14 95
20 21 22	J. W. Gorman C. E. Perkins C. C. Fouts Pay roll of officers Pay roll No. 1 Pay roll No. 2 Pay roll No. 3	Labor Traveling expenses as chief engr. Hardware	6 00 15 00 22 03 544 16 397 49 121 62 50 00
	Total for month		\$1,735 21
		November, 1906.	
1 :2	Fred Maag E. C. Booth	Expense account	\$5 85 2 75

No. of Voucher.	To Whom.	And For What Paid.	Amount.	_
3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	J. W. Sullivan. Charles Cooper Charles Cooper Cincinnati & Sub. Bell Telephone Co. J. W. Sullivan. James Aylward J. W. Gorman. Emil H. Guth. Fred Blursch Henry F. Eyler. John Sawyer Fred R. Smith. A. Ritter Charles E. Denney Charles Haas Charles E. Perkins. Pay roll of officers. Pay roll No. 1 Pay roll No. 2		1 7 57 3 20 0 6 8 3 8 8 0 6 0 11 8 9 2 2 27 5 52 54 4 1 1 6 24 0 0 544 1 330 1 50 0 0 \$\$1,280 3	35 36 35 36 36 36 36 36 36 36 36 36 36 36 36 36

ABSTRACT OF MONEY PAID.

By Charles Cooper, Superintendent Sub-Division No. 1, Grand Division No. 3, Miami and Erie Canal, for Material and Labor for the Repair of Locks between Cincinnati and Dayton.

No. of Voucher.	T∪ Whom.	And For What Paid.	Amount.	
1 2 3	J. W. Montgomery T. S. Voorhees Emil H. Guth Total for month	Blacksmithing	\$303 4 3 0 17 0 \$323 5	00 03. —

By John O'Connor, Superintendent Division No. 3, Sub-Division No. 2, Miams and Eric Canal, for Material and Labor for the Maintenance and Repair of the Public Works.

No. of Voucher.	To Whom.	And For What Paid.	Amount.
		December, 1905.	
1 2 3 4 5 6 7 8 9	Elmer Wombold Frank C. Davis Lincoln Evans Edward McConnell Central Union Tel. Co. M. Morgan Amer. Wagon Stock Mfg. Co. The John Rouzer Co. John M. O'Connor The Dayton Globe Iron	Expenses as collector	\$4 90 2 85 24 80 34 50 2 50 9 50 - 22 08 74 70 36 00
11 12 13 14 15 16 17	Works Makley & Ryder John Bushnell Piqua Home Tel. Co August Wise Willman Bros. John O'Connor Central Union Tel. Co	Renairs for dredge 4. Horse shoeing for Dayton team Horse shoeing for Piqua team Telephone for foreman, 3 mos Lumber for dam Sacks Expenses as supt Rent of telephone for supt.'s office	12 75 3 00 3 10 3 75 10 23 3 34 59 70
18 19 20 21	J. B. Conners Coal Co Charles E. Perkins W. H. McClintock C. M. Gracey Pay roll of officers Pay roll No. 1 Pay roll No. 2 Pay roll No. 3	Coal for dredge 4. Traveling expenses as chief engr. Traveling expenses as secretary. Typewriting services	51 08 12 00 15 00 1 25 472 66 341 63 191 89 202 30 \$1,600 51
	Total for month		φ1,000 9 1
1 2	Elmer Wombold Frank C. Davis	January, 1906. Expenses as collector Expenses as collector	\$4 15 3 75
3 4 5 6 7 8 9 10 11 12 13 14	Lincoln Evans Edward McConnell Central Union Tel. Co Huntsville Tel. Co W. E. Clingan Michael Moran J. A. Clymer Central Union Tel. Co. John O'Connor Charles A. Gump Charles E. Perkins F. W. Schaub	Keeping team and expenses. Keeping team and expenses. Collector's office at Dayton. At Lewistown Reservoir Livery Liverv Coal for dredge 4. For supt's office. Expenses as supt. Material for dredge 4. Traveling expenses as chief engr. Messenger services	

BOARD OF PUBLIC WORKS.

No. of Voucher.	To Whom.	And For What Paid.	Amount.
15 16	W. H. McClintock J. S. Mosgrove Pay roll of officers Pay roll No. 1 Total for month	Traveling expenses as secretary Bonding services	10 00 10 80 406 66 318 12 \$896 48
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	Elmer Wombold Frank C. Davies Lincoln Evans Edward McConnell Central Union Tel. Co. Central Union Tel. Co. Makley & Ryder John O'Connor Willman Bros. Huntsville Tel. Co. August Wise John Bushnell T. W. Campbell. Samuel Bachtell Charles E. Perkins. Pay roll of officers Pay roll No. 1 Pay roll No. 2 Total for month.	February, 1906. Expenses as collector	\$4 30 3 70 22 90 29 20 3 95 3 50 3 25 58 70 4 75 80 69 87 1 80 7 00 5 00 12 00 406 66 149 00 151 58
1 2 3 4 5 6 7 8 9 10	Elmer Wombold Frank C. Davies Lincoln Evans Edward McConnell Central Union Tel. Co. Central Union Tel. Co. Piqua Home Tel. Co. M. Moran John O'Connor Charles E. Perkins Charles W. Diehl. Pay roll of officers Pay roll No. 1 Pay roll No. 2 Total for month	March, 1906. Expenses as collector	\$4 60 2 75 25 30 33 10 5 30 3 50 3 75 2 00 55 80 10 00 8 00 472 66 163 00 129 10

No. of Voucher.	To Whom.	And For What Paid.	Amount.
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	Elmer Wombold Frank C. Davies Lincoln Evans Edward McConnell Central Union Tel. Co. Charles H. Cook. Alex. Gebhart & Co. Miami Lumber Co. The Tipp Bldg. & Mfg. Co. C. L. Wood. W. F. Robbins B. D. Wissman Central Union Tel. Co. John O'Connor Wm. E. Glingman Willman Bros. W. E. Thompson Charles E. Perkins Charles E. Perkins American Surety Co. Pay roll of officers Pay roll No. 1. Pay roll No. 2. Total for month.		\$4 60 6 00 33 50 37 70 3 50 6 25 10 50 69 44 72 69 31 50 3 50 3 25 5 45 57 60 24 00 3 38 15 00 1 70 10 80 406 66 411 86 177 05
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 20 21 22 23 24	Wood, Cox & Son	Coal Rubber boots Expenses as supt Rubber boots Blacksmith work Shoeing team	\$6 15 8 10 24 40 30 60 5 35 3 50 4 50 12 00 56 30 5 00 3 41 3 00 4 60 33 00 17 89 8 80 3 10 8 32 12 07 9 90 60 80 40 70 10 00

No. of Voucher.	To Whom.	And For What Paid.	Amount.
25 26 27 28 29 30 31 32 33	The United Tel. Co. A. O. T. Andrus. The Robert Hixon Co. Central Union Tel. Co. Frank J. McColloch Frank M. Stubbs. M. Moran Samuel Bachtell Charles E. Perkins. Pay roll of officers. Pay roll No. 1 Pay roll No. 2 Pay roll No. 3. Total for month.	Livery Lumber Service at Lewistown Reservoir. Services at Lewistown Reservoir. Boats rafting floating timber. Livery at Dayton	1 10 4 70 54 52 80 25 00 30 00 2 00 3 00 12 50 406 66 643 48 553 63 421 13
		June, 1906.	
$\frac{1}{2}$	Elmer Wombold	Expenses as collector	\$4 25 8 00 27 40
5 6 7 8	Edw. McConnell Central Union Tel. Co John Bushnell The Piqua Telephone Co S. Zolinger & Co	foreman Rent and tolls for supt.'s office Blacksmith work Rent for 3 mos. for foreman Cement	26 85 4 70 6 00 3 75 5 55
9 10 11 12 13 14	August Wise L. N. Woodcox & Son Samuel Avy John O'Connor T. D. Eichelberger Frank M. Stubbs	ance beams Hardware and rope	113 83 23 59 5 00 58 60 15 20
15 16 17 18 19 21 22 23	Frank M. Stubbs	bank Rent of boat rafting drift wood Livery at Lewistown reservoir Shoeing for Dayton team Hardware for Dayton repair boat. Paper for Dayton lock house Forge for dredge No. 4 Steam pump for dredge No. 4 Hardware and rope for dredge	475 20 28 00 4 00 3 00 7 37 3 60 10 80 74 80
24 25 26 27 28 29 30	Chas. H. Cook	Rent of telephone for collector Livery to Miami aqueduct Lumber for aqueduct wall Cement for Miami aqueduct	14 88 2 87 3 50 8 00 121 18 235 60 11 15 15 00

ANNUAL REPORT

No. of Voucher.	To Whom.	And For What Paid.	Amount.
31	Leo Veit		8 75 487 66 222 87 798 70 280 25 \$3,119 90
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 20 21 22 23 24	Elmer Wombold Frank C. Davies. Lincoln Evans Edward McConnell Central Union Tel. Co. Huntsville Tel. Co. The United Tel. Co. Clem L. Kimmel I. N. Woodcox. Danner & O'Leary. Alex. Gebhart & Co. D. Leonard & Son. Makley & Ryder. John Bushnell F. W. Snvder. Michael Moran A. O. T. Andrus. B. Wissman W. F. Robbins. Frank M. Stubbs. Frank M. Stubbs. Frank M. Stubbs. James Burt John O'Connor Charles E. Perkins. Pay roll of officers. Pay roll No. 1. Pay roll No. 2. Pay roll No. 3.	Expenses as collector. Expenses as collector. Keeping team and expenses. Keeping team and expenses. For supt.'s office. Tolls at Lewistown Reservoir. Tolls at Lewistown Reservoir. Tools and rope. Hardware Pump Lumber Harness Horse shoeing Blacksmith work Livery Livery Livery Livery Livery Piling at Lewistown Reservoir. Rent of boats. Making lock gates. Expenses as supt. Travelling expenses as chief engr.	* \$4 15 6 50 33 40 6 70 1 20 40 13 06 5 78 6 00 20 00 35 00 1 60 4 25 7 00 22 50 1 50 6 00 457 92 16 00 75 00 431 66 434 11 899 90 376 75
1 2 3 4 5 6 7 8	Central Union Tel. Co Central Union Tel Co Makley & Ryder	Expenses as collector	\$4 05 5 05 31 80 44 90 3 90 4 30 3 00 6 80

No. of Voucher.	To Whom.	And For What Paid.	Amount.
9 10 11 12 13 14 15 16 17 18 19 20 21	George Rider I. N. Woodcox & Son. C. L. Wood. F. E. Leatherman James L. Day. Frank M. Stubbs. Central Union Tel. Co. John O'Connor Charles H. Cook. Alexander Gebhart Co. Clem L. Kimmel. Samuel Bachtell Charles E. Perkins. Pay roll of officers. Pay roll No. 1. Pay roll No. 2. Total for month.	Spikes and nails	2 00 6 00 15 45 6 45 10 05 42 00 7 60 59 50 2 25 80 01 19 50 3 10 15 00 431 66 286 98 369 50
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19	Charles E. Perkins Pay roll of officers Pay roll No. 1 Pay roll No. 2	Keeping team and expenses Supplies for repair boat No. 1. Tools for repair boat No. 1. Repairs on plow Blacksmith work Blacksmith work Piling for Lewistown Reservoir. Boats for rafting timber. Rubber boots Service at Lewistown Reservoir. Rent of telephone. Rent of telephone Rent of telephone. Veterinary services Expenses as supt. Expenses as chief engr.	\$4 50 5 00 24 90 28 40 24 00 39 35 3 00 3 95 2 50 103 68 8 50 16 00 1 30 3 75 3 75 4 15 1 50 59 20 1497 66 210 25 326 50 \$1,386 59
1 2 3	Elmer Wombold	October, 1906. Expenses as collector	\$6 85 5 05 25 30

No. of Voucher.	To Whom.	And For What Paid.	Amount.
. 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	Edward McConnell Central Union Tel. Co. Central Union Tel. Co. Makeley & Ryder Charles H. Cook John Bushnell I. N. Woodcox & Son C. L. Wood. P. I. Hedges Slusser-McLean Co. A. O. T. Andrews Frank Stubbs John O'Connor John O'Connor John O'Connor Charles A. Gump John O'Connor Samuel Bachtell C. E. Perkins. Pay roll of officers Pay roll No. 1. Pay roll No. 2	Telephone for collector's office. Telephone for supt.'s office. Horse shoeing Making pike hooks. Shoeing for Piqua team. Hardware Lumber for lock repairs. Material for McConnell, foreman. Castings for lock gates. Livery at Lewistown reservoir. Earth for repairing Lewistown reservoir bank Advertising canal notice. Expenses as supt. Rubber boots Rent of telephone at Dryden's lock Travelling expenses as asst. engr. Travelling expenses as chief engr.	34 10 3 90 5 60 3 40 6 50 1 10 68 78 73 17 4 00 57 50 16 35 59 65 40 50 9 00 7 55 15 00 431 66 249 62 642 75
	Total for month	November, 1906.	\$1,710 90
1 2 3 4 5	Elmer Wombold D. C. Statler Lincoln Evans Edw. McConnell Central Union Tel. Co. J. M. Deam.	Epenses as collector	\$6 65 13 25 28 10 46 60 4 60 8 00
7 8 9 10 11 12	Clem L. Kimmel	Material for Evans, foreman Making irons for pike pole Roofing material for lock house Expenses as supt Livery Earth to raise bank at Lewistown	90 2 61 4 58 59 50 3 00
13 14 15 16 16	Albert Shaffer	reservoir Livery at Lakeview by supt Earth to make bank at Troy feeder Livery at Dayton by supt Printing canal notices Travelling expenses as chief engr	87 43 7 75 16 00 10 50 4 00 15 00 431 66 849 51
	Total for month		\$1.599 64

By John O'Connor, Superintendent Sub-Division No. 2, Grand Division No. 3, Miami and Erie Canal, for Material and Labor for Repairing Banks of Lewistown Reservoir.

Pay roll No. 1. 27 98				
Pay roll No. 1. Piling for protection of Lewistown reservoir bank 151 20 27 98		To Whom.	And For What Paid.	Amount.
Pay roll No. 1. 151 20 27 98 Total for month 27 98			i i	
Total for month \$179 18	1		reservoir bank	151 20° 27 98:
1. A. C. House. Lumber \$71 89			ĺ.	\$179 18
James A. Marshall Sacks 29 50			March, 1906.	
April, 1906.	2 3 4 5 6 7 8	James A. Marshall. James M. Duff. E. L. Frey. The Huntsville Tel. Co The United Tel. Co. A. O. T. Andrus. Eliot & Compton. Elmer Cox Pay roll No. 1. Pay roll No. 2.	Sacks Fodder Rubber boots Tolls Livery Refreshments for men at night. 53 meals at 25 cents each.	29 50 15 15 13 25 2 40 1 00 3 50 3 75 13 25 149 00 101 12
1 Frank M. Stubbs. Piling \$432 00 2 James L. Day. Repairing 5 50 3 United Tel. Co. Telephone service 2 25 4 The Huntsville Tel. Co. Telephone service 90 5 A. O. T. Andrus Livery 6 00 6 Frank M. Stubbs. Rent of boats 29 00 7 A. C. House. Sacks 28 00 Pay roll No. 1 376 10 Total for month \$879 75 May, 1906. 1 James L. Day. Nails \$13 22		Total for month		\$403 81
2 James L. Day. Repairing 5 50 3 United Tel. Co. Telephone service 2 25 4 The Huntsville Tel. Co. Telephone service 90 5 A. O. T. Andrus. Livery 6 00 6 Frank M. Stubbs. Rent of boats. 29 00 7 A. C. House. Sacks 28 00 Pay roll No. 1 376 10 Total for month \$879 75			1	
May, 1906. 1 James L. Day	3 4 5 6	James L. Day. United Tel. Co The Huntsville Tel. Co A. O. T. Andrus. Frank M. Stubbs.	Repairing Telephone service Telephone service Livery Rent of boats Sacks	2 25 90 6 00 29 00 28 00
1 James L. Day		Total for month		\$879 75
			. May, 1906.	
Total for month \$13 22	. 1	James L. Day	Nails	\$13 22
		Total for month		\$13 22

By John O'Connor, Superintendent Division No. 3, Sub-Division No. 2, Miami and Erie Canal, for Material and Labor for the Repairs of the Miami Aqueduct.

No. of Voucher.	To Whom.	And For What Paid.	Amount.
		March, 1906.	
1	Huston & Cleveland	Miami River Aqueduct	\$4,750 00
	Total for month		\$4,750 00
		May, 1906.	
1	M. Moran	Livery	\$13 50 113 75
	Total for month	,	\$127 25
	•	June, 1906.	
	Pay roll No. 1		\$372 75
	Total for month	•••	\$372 75

ABSTRACT OF MONEY PAID.

By John O'Connor, Superintendent Division No. 3, Sub-Division No. 2, Miami and Erie Canal, for Material and Labor for the Repairs of Mad River Aqueduct.

No. of Voucher.	To Whom.	And For What Paid.	Amount.
		March, 1906.	
1	Clem L. Kimmel	Nails	\$10 48
	Total for month		\$10 48

By H. W. Meacham, Superintendent Sub-Division No. 3, Grand Division No. 3, Miami and Erie Canal, for Material and Labor for the Maintenance and Repair of the Public Works.

No. of Voucher.	To Whom.	And For What Paid.	Amount.
		December, 1905.	
1 2 3 4 5 6 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 20 21 22 22 23 23 24 25 26 26 27 27 28 28 29 20 20 20 20 20 20 20 20 20 20 20 20 20	Joseph Hitz Bissonnett & Deibel. Waterville Hardware Co Dunan & Koeper C. J. Stickney & Co H. W. Meacham Charles E. Perkins. W. H. McClintock Bertha Young Pay roll of officers. Pay roll No. 1	Epenses as collector Expenses as collector and rent. Telephone rent Telephone rent and postage. Telephone rent and expenses. Keeping team, etc. Keeping team, etc. Livery Livery Livery Blacksmithing Hardware Hardware Hardware Lumber Expenses as supt. Travelling expenses as chief engr. Travelling expenses as secretary. Typewriting services	9 25 20 57 15 00 2 54 9 90 22 35 20 40 6 00 10 75 23 00 2 79 11 25 8 13 85 15 10 00 15 50 669 48 368 25
	Total for month	January, 1906.	\$1,368 87
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	George Weadock G. H. Blaker W. A. Kehnast & Co Charles L. Koch & Co H. W. Meacham	Expenses as collector	9 90 6 00 1 50 6 60 4 30 21 05 10 30 1 50 27 00 7 54 48 15 48 25 93 65

No. of Voucher.	To Whom.	And For What Paid.	Amount.
17 18 19	J. S. Mosgrove	Bonding services Travelling expenses as secretary. Messenger services February, 1906.	12 60 10 00 6 66 669 48 253 25 \$1,215 20
1 2 3 4 5 6 7 8 9 10 11 12 13 14	C. C. Domitio. S. L. Teeple	Coal Services as veterinary. Telephone messeages Telephone rent Telephone rent Expenses as foreman Keeping team, etc. Keeping horse, etc. Livery Hardware Lumber Expenses as supt. Traveling expenses as chief engr Traveling expenses as asst. engr.	\$7 25 5 00 2 55 1 50 3 20 5 25 20 60 10 80 4 88 7 60 82 40 10 00 5 50 669 48 209 24
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	C. C. Domitio Jos. McGahan H. W. Myers. D. H. Hancock. Toledo Home Tel. Co. Tod Trowbridge Central Union Tel. Co. The Northern Ohio Tel. The United States Tel. Co. Wesley McDonald Frank Bennett S. E. Allmon. J. R. Spencer. J. W. McGovney. William Jones Johns & Good. W. H. McClintock. H. W. Meacham.	March, 1906. Coal	\$7 25 15 00 3 50 16 67 15 00 1 70 11 95 2 60 2 20 3 55 32 15 10 45 4 50 37 50 13 05 74 50 79 80

No. of Voucher.	To Whom.	And For What Paid.	Amount.
20 21 22	Charles E. Perkins	Traveling expenses as chief engr. For services rendered For services rendered	11 00 8 00 27 00 669 48 150 38 86 50 \$1,319 23
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	The M. I. Wilcox Co. W. H. Doll. The Glass Block Co. The L. Beckman Co. The Defiance Mach. Works H. W. Myers. The Northwestern Tel. Co. The Citizens' Tel. Co. Tod Trowbridge Wesley McDonald Frank Bennett S. E. Allmon J. R. Spencer Philip Grant George W. Weadock Kollsmith Bros. L. Archambeautt Dunen & Koeper St. Marys Planing Mills William Mackenbach H. W. Meacham Charles E. Perkins E. L. Stallkamp E. E. Carter H. M. Davies C. J. Daoust W. O. Smith C. V. Backus T. E. Vanaetaker E. Maehlman Pay roll of officers Pay roll No. 1 Pay roll No. 2 Total for month.	April, 1906. Rope and pike pole	\$13 63 15 60 8 75 29 20 78 48 3 34 26 25 6 00 1 50 24 90 25 35 22 50 33 00 16 70 34 60 8 21 9 00 69 60 89 30 15 00 39 94 113 58 80 76 34 40 69 48 321 12 269 00 \$2,108 92
$\frac{1}{2}$	The Defiance Mach. Works. R. B. Anderson		\$52 32 30 00

ANNUAL REPORT

Abstract of Money Paid — Continued.

No. of Voucher.	To Whom.	And For What Paid.	Amount.
3 4 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 32 44 25	The L. Beckman Co. Tug Dan W. Miller United States Tel. Co. Tod Trowbridge Wesley McDonald Frank Bennett S. E. Allmon J. R. Spencer S. G. Floyd George W. Weaks J. P. Sautler John Noffsinger Jos. Hitz M. L. Haviland Dunan & Koeper The W. A. Kuhlman Co. H. B. Teuzer Co. Wm. Peter, Estate The Maclaren & Sprague Co. W. T. Hubbard Blade Printing & Paper Co. H. W. Meacham C. E. Perkins Pay roll of officers. Pay roll No. 1. Pay roll No. 2. Total for month	Cleaning lock No. 52. Telephone messages Telephone rent Telephone rent and messages. Expenses as foreman Keeping team, etc. Keeping team, etc. Livery Livery Livery Blacksmithing Blacksmithing Hardware Hardware Lumber Lumber Lumber Lumber Lumber Coffice files Expenses as supt. Traveling expenses as chief engr.	12 10 24 00 1 35 1 50 2 60 2 85 30 45 20 35 2 00 6 00 6 75 3 00 90 05 1 01 4 25 139 40 2 27 3 52 10 67 30 24 98 05 69 55 69 55 69 55 69 55 15 00 694 48 421 37 436 75
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	Central Union Tel. Co Toledo Home Tel. Co Tod Trowbridge Wesley McDonald Frank Bennett S. E. Allmon J. R. Spencer Bissonnett & Diebel	Wall paper Labor at lock No. 33. Labor at Otsego. Labor at Auglaize River Aqueduct Expenses as collector Expenses as collector and rent. Expenses as collector and rent. Telephone messages Telephone rent and messages. Telephone rent	\$4 75 6 80 10 00 15 00 3 20 19 03 35 57 10 30 15 00 1 50 2 80 2 80 20 75 3 95 5 395

21 J 22 1 23 H 24 C H H H H 1 1 2 H	To Whom.	And For What Paid.	Amount.
21 J 22 J 23 H 24 C			
2 I	W. Hellum John A. Aspacher & Co Theisen & Hildred H. W. Meacham Charles E. Perkins Pay roll of officers Pay roll No. 1 Pay roll No. 2 Pay roll No. 3 Total for month	Lumber Lumber Lumber Expenses as supt. Traveling expenses as chief engr.	21 83 194 88 256 06 55 80 15 00 684 48 378 75 296 50 128 75
4 C C C C C C C C C	The M. L. Wilcox Co. King & Williams	July, 1906. Oakum, paint, etc	\$25 68 9 10 4 83 70 3 80 209 28 10 50 27 75 2 65 1 50 6 00 8 30 1 50 3 50 5 80 39 70 28 80 29 90 6 15 7 75 31 25 11 42 15 15 15 20 45 72 94 11 57 11 74 69 35 15 90 684 48 538 66 544 50

No. of Voucher.	To Whom.	And For What Paid.	Amount.
1 23 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	The Defiance Mach, Works C. C. Domitio The L. Beckman Co H. W. Myers The U. S. Telephone Co Tod Trowbridge August Bolmer S. Gallaspie W. F. Smith. Wesley McDonald Frank Bennett J. R. Spencer S. E. Allmon. Wolford & Berry. W. A. Kuhlman & Co W. A. Reynolds. H. W. Meacham Charles E. Perkins. Pay roll of officers. Pay roll No. 1. Pay roll No. 2. Total for month.		\$78 48 1 03 8 50 4 25 2 20 1 50 14 00 18 00 30 00 7 78 3 65 26 80 32 00 12 08 96 72 5 00 68 65 15 00 68 67 405 50 \$1,776 31
14 15 16 17 18 19 20 21 22 23 24	Central Union Tel. Co Tod Trowbridge Wesley McDonald S. E. Allmon J. R. Spencer Frank Bennett Dunan & Koeper Herman Ricker & Sons William Mackenhach	Expenses as collector and rent Expenses as collector Telephone messages Telephone rent Telephone rent and messages Telephone rent and expenses Keeping team and expenses Keeping team and expenses	\$42 40 12 00 8 30 11 50 10 00 3 50 14 00 15 00 21 16 20 23 1 84 2 50 15 00 13 45 1 50 6 17 31 01 22 75 8 22 12 50 7 60 13 82 82 82 74 238 43

No. of Voucher.	To Whom.	And For What Paid.	Amount.
27 28	H. W. Meacham	Expenses as supt	54 80 15 00 657 81 503 87 334 75 \$2,206 85
	-	October, 1906.	•
1 2 3 4 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25	The Defiance Mach Wks Harley & Whitaker D. Armstrong Schneider Bros. Schneider Bros. Lewis Overle Stollburg & Parks W. C. Holden The Harley Shoe Store R. H. Armstrong The U. S. Telephone Co Tod Trowbridge Wesley McDonald H. W. Myers. S. E. Allmon. J. R. Spencer Frank Bennett Dunan & Koeper W. A. Kuhlman & Co Wm. Mackenbach Herman Ricker & Sons H. W. Meacham. F. W. Harms E. G. King C. E. Perkins. Pay roll of officers. Pay roll No. 1. Pay roll No. 2.		\$29 95 9 38 13 33 37 00 175 00 69 40 40 00 5 00 16 00 2 10 1 50 3 05 3 95 29 26 21 75 7 753 13 76 28 36 57 80 24 00 53 32 15 00 584 48 679 05 382 85
	Total for month		\$2,358 04
		November, 1906.	
1 2 3 4 5 6 7 8	Schulien & Roth	Cement Sand Expenses as collector Telephone messages Telephone rent Telephone rent	\$70 03 29 06 13 84 7 39 50 6 30 1 50 3 55

No. of Voucher.	To Whom.	And For What Paid.	Amount.
9 10 .11 .12 13 14 15 16 17 18	S. E. Allmon J. R. Spencer Frank Bennett George W. Weadock J. W. McGovney L. Archambeault H. B. Tenzer Co Thiesen & Hildred H. W. Meacham Charles E. Perkins Pay roll of officers Pay roll No. 1 Pay roll No. 2 Total for month	Livery Blacksmithing Lumber Lumber Expenses as supt. of repairs Traveling expenses as chief engr.	- 24 25 24 85 3 40 55 00 56 90 3 50 7 43 327 63 53 05 15 00 584 48 501 75 306 00 \$2,095 41

ABSTRACT OF MONEY PAID.

By H. W. Meacham, Superintendent Sub-Division No. 3, Grand Division No. 3, Miami and Erie Canal, for Maintenance and Labor for Repairs at Grand Reservoir.

No. of Voucher.	To Whom.	And For What Paid.	Amount	
		March, 1906.		
1	The Bellefontaine Stone Co. Pay roll No. 1	Stone	\$30 13	64 50
	Total for month		\$44	14
		August, 1906.	•	
1 2 3 4 5	William Hamm William Swartz Charles' Marshall Thomas Carper John Hein	LaborLabor	1	20. 20. 20.
	Total for month		\$132	50°

No. of Voucher.	Γο Whom.	And For What Paid	Amount.
	Pay roll No. 1	November, 1906. Labor on Grand Reservoir	\$ 137 75
	Total for month		\$137 75

ABSTRACT OF MONEY PAID.

By H. W. Meacham, Superintendent Sub-Division No. 3, Grand Division No. 3, Miami and Eric Canal, for Services and Expenses in the matter of the Dynamiting Case at St. Marys Reservoir.

No. of Voucher.	To Whom.	And For What Paid.	Amount.
		March, 1906.	
1	The Pinkerton Detective Agency	Services rendered	\$ 318 33
	Total for month		\$ 318 33

Improvement Miami and Erie Canal, between Dayton and Cincinnati, as provided by an Act of the Seventy-Seventh General Assembly of Ohio, by James C. Wonders, Assistant Engineer.

No. of Voucher or Estimate.	To Whom.	And For What Paid.	Amount.
		45 1006	-
1 2 3 4 5 6 7 8	Probst Furniture Arcade Middletown Elec. Light Co. Wm. Chestnut Conroy, Levy & Co Johnson & Co Charles E. Denney W. E. McElree James C. Wonders Pay roll No. 1	Personal expenses	\$12 68 11 77 6 50- 20 61 66 30 101 13 6 10- 84 55 275 00-
	Total for month		\$584 64
	,	May, 1906.	•
1 2 3 4 5 6 7 8	George D. Baker Joseph Schueller W. E. McElree H. C. Baldwin James C. Wonders Hatfield Coal Co Charles E. Denny	Personal expenses Personal expenses Personal expenses Personal expenses Personal expenses Coal for boarding boat Supplies for canal survey Supplies and repairs engineer's	\$61 20- 44 25- 59 45- 17 35 105 15- 4 50 21 43-
9	Probst Furniture Arcade	Supplies and repairs engineers	25 85
10 11 12 13 14 15	Johnson & Co	office and boarding boat	19 75 4 60 10 15 6 75 17 00 15 80
16	Co	Supplies for boarding boat	11 40
17	Light and Power Co The Toledo Blade Co	Lighting engineer's office	75. 5 28
18	The Commercial Tribune	Publishing advertisement sale of	
19	Ohio State Journal	work	4 17
20	Dayton Daily News	work	5 15
21	The Toledo Press	work	6 2 5 -
		work	6 65-
22	Plain Dealer Publishing Co.	Publishing advertisement sale of . work	6 03:

Abstract of Money Paid — Continued.

No. of Voucher or Estimate.	To Whom.	And For What Paid.	Amount.
23 24	The Columbus Press Enquirer Company Pay roll No. 1 Total for month	work	5 55 5 71 802 76 \$1,272 93
1 2 3 4 5	George D. Baker	Personal expenses Personal expenses Personal expenses Personal expenses Personal expenses	\$117 20 30 20 42 25 29 90 63 40
7 8 9 10	The Middletown Electric Light & Power Co Johnson & Co John S. Spoerl Charles E. Denny Central Union Tel. Co Fred R. Smith	Lighting asst. engrs. office	75 33 12 2 00 5 00 1 85 10 00
12 13 14 15	Joseph Dietz Ohio State Journal The Engineering News Pub Co. Plain Dealer Publishing Co.	Personal expenses *	11 95 16 26 36 00 7 90
16 17 18 19 20 21 22 23	The Columbus Press. Dayton Daily News The Defiance Express. Leader Printing Co The Dayton Journal Co The Crescent Pub. Co The Toledo Press. The Toledo Newspaper Co. Pay roll No. 1 Lockland Lumber Co F. W. Elberg. William Sheedy John Mueller	Publishing sale notices.	9 87 10 00 5 25 5 00 5 63 6 41 10 40 6 65 738 25 5 00 9 75 22 42 17 50
		July, 1906.	\$1,433 21
2	W. E. McEltee	Personal expense account	\$91 20 56 40 66 65 68 85

No. of Voucher or Estimate.	To Whom.	And For What Paid.	. Amount.
5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	Frank Shuey	Personal expense account. Supplies for engrs. office. Supplies for surveying party. Letter heads for engrs. office. Lighting engrs. office. Typewriting contracts, etc. Publishing sale notices. Supplies for state dredge boat. Coal for state dredge boat. Coal for state dredge boat. Car fare for state dredge crew.	60 30 7 00 23 55 2 90 5 95 1 32 8 65 25 92 611 00 1 75 2 80 4 00 2 00 4 57 38 60 48 65 44 35 282 62
22 23 24	Works	Repairs to dredge No. 4	52 00 44 50
24	Total for month	t unishing sale notices	\$1,595 13
1	James C. Wonders	August, 1906. Personal expenses	. \$96 60
2 3 4 5 6 7	George D. Baker	Personal expenses Personal expenses Personal expenses Personal expenses Personal expenses	50 55 61 60 52 45 49 50
8 9 10 11	Power Co. Remington Typewriter Co Johnson & Co The Dayton Daily News The Commercial Tribune	Typewriter for engineer's office Supplies for engineer's office	13 80 4 00
12 13	The Toledo Newspaper Co.	Advertising sale of work	3 46 4 40 16 50
14 15 16 17 18	The Enquirer Company Enquirer Company Enquirer Company		16 20 7 42 9 12 4 66

-			
No. of Voucher or Estimate.	To Whom.	And For What Paid.	Amount.
19 20 21 22 23 33 41	Waverly News, Pike Co The Shelby News Ohio State Journal C. C. Fouts Fred R. Smith Plain Dealer Pub. Co The Cleveland Leader Co Pay roll No. 1	Advertising sale of work	9 75 5 50 4 12 5 80 30 85 4 90 4 30 610 75
	Estimates.		•
1 2	W. J. Orr		425 00 153 08
	The following expenses were incurred by Chas. Cooper, Supt. of Division No. 2:		
24 25 26 27 28 29 30 31 32 42 43	H. S. Conover The Stacey Mfg. Co. Treon & Cade. William Sheedy H. F. Eyler Frank Shuey Pay roll No. 2.	Coal and supplies for dredge No. 4 Supplies dredge No. 4 Supplies dredge No. 4 Supplies dredge No. 4 Supplies dredge No. 6 Supplies dredge No. 6 Supplies dredge No. 4	48 00 20 90 38 79 3 00 11 05 12 50 10 00 75 39 00 4 70 7 94 437 75 127 02
	The following expenses were incurred by John O'Connor, Supt. of Sub- division No. 2:	, .,	
34 35 36	Dayton Livery Co	Bolts for canal scrapersLivery for suptIron and labor making canal scra-	1 50 4 00
37 38	The John Rouzer Co	Labor for making canal scrapers Rope and bolts in towing and	26 48 53 85
39 40	Alexander Gebhart & Co John M. O'Connor	making canal scrapers Lumber for making scrapers Rent of canal boat for dredge No.	213 14 24 14
	Pay roll No. 1	4	54 00 629 00

No. of Voucher or Estimate.	To Whom.	And For What Paid.	Amount.
No. of			
	Pay roll No. 2	,	465 00
	Pay roll No. 3	•••••	342 50 1,595 00
	Total for month		\$5,920 60
		September, 1906.	•
1 2 3 4 5 6	James C. Wonders George D. Baker W. E. McElree Joseph Schneller H. C. Baldwin C. C. Fouts	Personal expenses Personal expenses Personal expenses Personal expenses Supplies for Miami River dam	\$70 20 48 25 66 00 57 55 50 05
7	The Amer. Contractor		8 10
8	The Dayton Journal Co	River Dam	4 00
9	The Columbus Press	Advertising proposals for Miami River Dam	4 52
10 11 12 13	The Middletown Electric Light & Power Co George Mitchell Fred Smith Probst Furniture Co	Lighting engineers office	75 4 25 19 95
14 15 16	Central Union Tel. Co A. Ritter	office Telephone service for engrs. office. Lock gate irons, bands and bolts. Supplies for engineer's office Engineer's office force	27 00 2 50 17 40 5 15 702 00
	Estimates.		
1	Frank Davis	Lesourdsville Aqueduct and Mid- dletown Lock	1,845 09
2	The Atlas Portland Cement		1,602 25
17 18 19 20 21	Fred Smith William Biehl William Sheedy	Livery	10 00 7 33
22 23 24 25	The Southern Ohio Express Co. R. V. Denny Frank Krehe Pay roll No. 6 Pay roll No. 7 John M. O'Connor	Rent of canal boat	9 40 13 00 111 78 360 92 24 00
26	C. H. Cook	Iron for canal scrapers	50 11

Abstract of Money Paid — Continued.

No. of Voucher or Estimate.	To Whom.	And For What Paid.	Amount.
27 28	Alexander Gebhart & Co Miami Lumber and Veneer	Lumber for flume and waste gates. Lumber for flume and waste gates	160 20 98 52
29	Co The John Rouzer Co	Making canal scrapers and build-	400.00
30 31	Clem L. Kimmel. S. T. & G. A. Gebhart. Pay roll No. 1. Pay roll No. 2. Pay roll No. 3. Pay roll No. 4. Pay roll No. 5.		103 05 69 96 8 62 1,103 50 415 00 540 50 2,122 50 637 00
	Total for month		\$10,440 18
	·	October, 1906.	
1 2 3 4 5 6 7 8	James C. Wonders. George D. Baker. W. E. McElree. Joseph Schneller H. C. Baldwin. Frank Davis C. C. Fouts. William Lambert	Personal expenses Personal expenses Personal expenses Extra work at Middletown lock. Supplies for carpenter shop Assisting engineer survey Big Four encroachment	\$88 50 60 15 49 87 63 65 65 20 60 58 20 20 2 00
9 10	William Rindsberg Chas. E. Denny	Inspector Sunfish Aqueduct Material for dam at Middletown	150 00
11	Central Union Tel. Co	lock	40 86
12	George Mitchell	office	3 30
· 13 14 15 16 17	Herm. Pfister Johnson & Co. Fetzer & Co. Fred R. Smith. C. C. Fouts.	office Repairing Y level Supplies for engineer's office Supplies for lockgate wicket Hauling lumber and livery Supplies, carpenter shop and engineer's office	1 00 3 50 13 25 21 10 18 00 4 80
18	Middletown Electric Light and Power Co	Lighting engineer's office	75 670 00
	Estimates.		
$rac{2}{2}$	 Frank Davis W. J. Orr		1,891 16
3	1	ing	402 88 306 00
19 20	Co	Brick for Shepherds creek culvert.	5 60 9 00

No. of Voucher or Estimate.	To Whom.	-And For What Paid.	Amount.
21	Mahatcke & Newton	Sacks for dam	38 50
22	Fred R. Smith	lock	27 60
23 24	Fred R. Smith	Team work at Miamisburg aqueduct `	30 00 12 65
25 26	Miamisburg Lumber Co Henry Eyler	Lumber used at Miamisburg aqueduct	25 81 9 25
27	Zeb Leis	Hauling cement and scooping gravel	25 50
28 29	Cin., Ham. & Dayton Ry H. C. Hoff Pay roll No. 5 Pay roll No. 6	Car service Comforts Chas. Cooper's Division	4 00 5 00 132 00 240 80
30 31 32	Clem L. Kimmel	Lumber	75 00 228 10 38 50 103 03 86 16
33 34 35 36 37	The John Rouzer Co Michael Moran Michael Moran	Cement Labor on flume. Livery for Supt. Livery for Supt. Car fare for men.	7 60 21 60 17 50 11 00 32 90
	Pay roll No. 1	John O'Connor's Division	1,738 50 869 00 1,866 25
	Total for month		\$9,597 60
		November, 1906.	
1 2 3 4 5 6 7	Joseph Schneller		\$74 45 38 10 51 55 37 15 49 00 • 60 11 10
8	Ohio Natural Gas Fitting Co.	Gas stoves and fittings for engineers' office	27 60
9	Middletown Elec. L. & P. Co	Lighting engineer's office Telephone service for engr.'s office.	75 4 25
11 12 13	William Rindsberg	Heating engineers' office Coal for engineer's office Inspector Lesourdsville aqueduct.	90 3 75 135 00
14	Geo. P. Gingerich	Driving test piles, Middletown dam	250 00

BOARD OF PUBLIC WORKS.

	· · · · · · · · · · · · · · · · · · ·		
No. of Voucher or Estimate.	To Whom.	And For What Paid.	Amount.
15 16	Fetzer & Co	Pattern work on wicket gates Lumber for Middletown lock	10 00
17	Charles E. Denny	gates	14 94
		veying party	11 75
18 19 20	The Frank M. Watkins Mnfg. Co. Sullivan Bros. A. Ritter	Propeller for gasoline launch Livery Iron and blacksmith work for	5 00 5 00
21 22 23	E. B. Ford	Middletown and Amanda locks. Testing cement Hauling and livery	93 84 17 50 16 00
24 25 26 27 28	Frank Davis The Stacey Mnfg, Co Pay roll No. 1. Fred R. Smith John Mueller John Arpp	Freight and car service, 2 cars cement, Amanda to Excello Extra work, Amanda lock Steel plates for lock gates auling for Middletown lock Coal for dredge No. 6 Pump and hose	163 80 56 30 190 00 670 00 22 60 18 75 14 00
29 30	J. A. Yingling's Sons Ralston Coal Co	Use of pump Middletown lock Coal for pumping out Middletown lock	· 12 55 6 00
31 32	L. B. Cahill F. F. Pegg	Rubber boots at Middletown lock. Engine pumping out, Middletown	19 75
33	C. C. Fouts	lock	27 30
34	Henry F. Eyler	etc. Car fare, Sunfish aqueduct	60 92 7 20 432 68 57 50
	Work done by John O'Con- nor, Supt:		
35	Pay roll No. 4	Assisting surveyor cross-sectioning canal	\$481 00
36 37	Bertha Young Leo Veit	Typewriting	5 25 50 4 00
	Partial Estimates.		
4			****
	Co. W. J. Orr. Frank Davis		\$153 00 167 56 1,090 38
•	Total for month	·	\$4,519 27

No. of Voucher or Estimate.	To Whom.	And For What Paid.	Amount.
1	John Snyder	November, -1906 — Supplemental. Final Estimate — Substructure, Sunfish aqueduct, first and final estimate, amount due Superstructure, Sunfish aqueduct, first and final estimate, amount of estimate, \$2,485.00; deduct allowance by Board, \$1,500.00; amount due	\$1,112 81 985 00 \$2,097 81

ABSTRACT OF MONEY PAID.

Improvement Miami and Eric Canal, between Dayton and Toledo, as provided by an Act of the Seventy-Seventh General Assembly of Ohio, by J. C. Wonders, Assistant Engineer.

No. of Voucher or Estimate.	To Whom.	And For What Paid.	Amount.
1 2	E. C. Baird	May, 1906. Services as engineer	\$33 20 15 00 \$48 20
$rac{1}{2}$	F. C. Kenthan	May, 1906. Services as engineer	\$2 50 50 00
3	H. W. Meacham Total	Traveling expenses	19 05 \$71 55

BOARD OF PUBLIC WORKS.

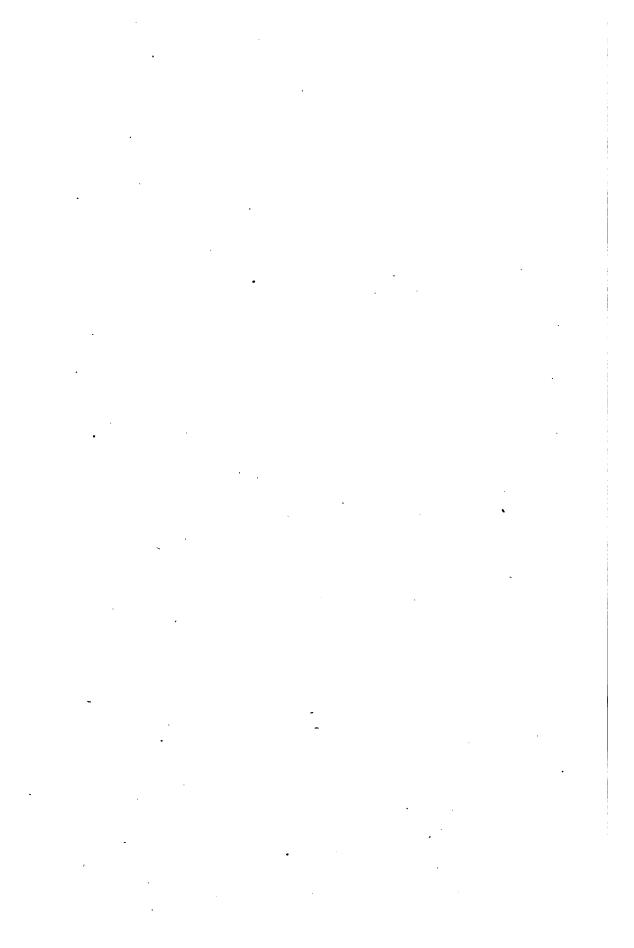
Abstract of Money Paid — Continued.

	·		
No. of Voucher or Estimate.	To Whom.	And For What Paid.	Amount.
		June, 1906.	
1	H. W. Meacham	Services as engineer, preparing	
2	H. W. Meacham	plans and field work Expenses of engineer, preparing plans and field work	\$60 00 29 65
,	Total	••••••	\$89 65
		July, 1906.	
$\frac{1}{2}$	The Dayton Journal Co The Commercial Tribune	Publishing notice of sale of work.	\$9 37
3	Co	Publishing notice of sale of work. Publishing notice of sale of work.	9 62 9 88
			\$28 87
	H. W. Meacham Division.	,	
4 5 6	H. W. Meacham	Services as engr., preparing plans. Expenses as engr., preparing plans.	\$40 00 26 30
7 8	Co	Publishing notice of sale of work. Publishing notice of sale of work.	8 90 8 12
9	Co	Publishing notice of sale of work. Publishing notice of sale of work.	8 55 7 13
	Total	-	\$127 87
		August, 1906.	
$\begin{array}{c} 1 \\ 2 \\ 3 \end{array}$	H. W. Meacham H. W. Meacham The L. Beckman Co		\$19 55 55 00 9 86
	 Pay roll No. 1		\$84 41 297 63
	Total		\$382 04
	The above expense was incurred by H. W. Meacham, Supt. of Div. No. 3.	.[·
4	H. W. Meacham	Personal epenses Services as engr	3 50

No. of Voucher or Estimate.	To Whom.	And For What Paid.	Amount.
67		Services as inspector Services as inspector	48 00 72 00
Į.	Estimates.		
· 1	The Atlas Portland Cement Co	Furnishing Portland cement Work on locks Nos. 36 and 37	\$2,355 75 2,346 48
	Total for month		\$4 ,976 93
	•	•	
į	<u>-</u>	October, 1906.	
1 2 3 4 5 6 7	H. W. Meacham	Services as engineer Personal expenses Bar iron and machine work Services as engineer Services as inspector Services as inspector Services as inspector	\$55 00 35 10 95 63 5 00 116 00 120 00 120 00
	Estimates.		
2	Schneider Bros The Atlas Portland Cement	D	\$3,110 49· 1,749 15·
	Total for month		\$5,406 37
i	Total for month		φυ,400 στ
	·	November, 1906.	
1 2 3	H. W. Meacham	Services as engineer	\$45 00· 31 80
4 5 6 7 8	Co. L. Archambeault Geo. W. Weadock Chas. Pohlman John Crowe	Cement testing apparatus	240 88 66 75 49 50 1 20 108 00 108 00 210 23
ļ	Partial Estimates.	·	
3 3 -1	The Atlas Portland Cement Co		\$1,521 00 4,632 16 2,411 10
	Total for month		\$9,425 62

BOARD OF PUBLIC WORKS.

No. of Voucher or Estimate.	To Whom.	And For What Paid.	Amount.
1	J. N. Kissner Total for month	November, 1906 — Supplemental. First and final estimate for constructing a culvert in the village of Spencerville	\$1,168 97 \$1,168 97



TONAGE STATISTICS

FOR THE

YEAR ENDING NOVEMBER 15, 1906.

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TONAGE STATISTICS.

STATEMENT

Of the Tonnage of Articles Arrived and Cleared at the Port of Cleveland on the Ohio & Erie Canal for the year Year ending November 15, 1906.

None. Navigation closed — Account of improvements.

	Articles.	Arrived.	Cleared.
None.	Navigation closed account of improvements		

JAMES M. JONES, Collector.

STATEMENT

Of the Tonnage of Articles Arrived and Cleared at the Port of Akron on the Ohio Canal, for the Year ending November 15, 1906.

Articles.	Arrived.	Cleared.
Coal (mineral)	5,848,000	3,260,000
Tons — Stone	15	

J. H. Morrison, Collector.

STATEMENT

Of the Tonnage of Articles Arrived and Cleared at the Port of Massillon on the Ohio Canal, for the Year ending November 15, 1906.

Articles.	Arrived.	Cleared.
Barrels — Lime and cement	15	15
Bushels — Coal	5,264,000	6,484,000
Pounds — Machinery Merchandise	10,000	12,000 8,000
Number — Barrels (empty)	190	190
Feet — Lumber	44,000	44,000

DAVID ATWATER, Collector.

Of the Tonnage of Articles Arrived and Cleared at the Port of Canal Dover on the Ohio Canal, for the Year ending November 15, 1906.

Articles.	Arrived.	Cleared.
Barrels — Flour Lime and cement		155 393
Bushels — Corn Coal (mineral, lbs.) Wheat		737 8,076,000 30,476
Pounds — Feed Pottersware (tiling)		24,000 368,000
Feet — Lumber		46,900
Cords — Wood		236

M. S. HARVEY, Collector.

STATEMENT

Of the Tonnage of Articles Arrived and Cleared at the Port of Roscoe on the Ohio Canal, for the Year ending November 15, 1906.

	Articles.	Arrived.	Cleared.
No f	reight		

August 28, 1906 — Wm. Hall, pleasure boat from May 1, 1906, to November 1, 1906, \$5.

W. H. WILSON, Collector.

STATEMENT

Of the Tonnage of Articles Arrived and Cleared at the Port of Newark and Carroll on the Ohio Capal, for the Year ending November 15, 1906.

Articles.	Arrived.	Cleared.
No tonnage on this division on either of the Canal Ports		, . ,

W. H. KIRKENDALE, Collector.

October 30, 1906 — Leni Butles, pleasure boat permit from December 22, 1905, to December 22, 1906, \$10.

Of the Tonnage of Articles Arrived and Cleared at the Port of Circleville and and Columbus on the Ohio and Eric Canal, for the Year ending November 15th, 1906.

Arţicles.	Arrived.	Cleared.
No tonnage on this division at either of the ports named above		

W. H. KIRKENDALE, Collector.

STATEMENT

Of the Tonnage of Articles Arrived and Cleared at the Port of Cincinnati on the Miami & Erie Canal, for the Year ending November 15, 1906.

Articles.	Arrived.	Cleared.
Barrels — Beer Vinegar Flour Oil Lime and cement Whisky Bushels —	10 1,370 32 15 80,836	52 120 33 235 182 7
Corn	70	
Pounds — Acid and drugs Baggage and furniture Pitch Cotton wadding Fire clay Roofing slate Tar Iron (pig or scrap) Iron (cast) Ice Iron (bar) Machinery Merchandise Pottersware Paper Powder Rags and paper stock. Sand Sugar	14,500 5,820 620,990 6,192,606 270,836 11,575 2,971,670 5,673,620	91,184 32,270 12,000 6,750 3,600 21,600 11,000 17,199 25,745
Number — Barrels (empty)		71,737 9,271
Lath		2,000
Feet — Lumber	98,218	205,540

FRED MAAG, Collector.

STATEMENT

Of the Tonnage of Articles Arrived and Cleared at the Port of Lockland, on the Miami & Erie Canal, for the Year ending November 15, 1906.

Articles.	Arrived.	Cleared.
Barrels — Vinegar Flour Oil, all kinds Lime and cement. Tar Whisky	22 2,032 82 693 10 3	1 1,458 2 37 31 2
Bushels — Potatoes Corn Oats	105	850 126
Pounds — Fireworks Cotton Baggage and furniture Acid Stoves Fire clay Paint Rosin Ice Iron (pig or scrap) Iron (cast) Iron (bar) Machinery Merchandise Sewer pipe Paper Powder Rags and paper stock Sugar Tallow	6,780 1,500 8,994 9,800 4,000 15,200	476,015 1,315,835 9,870 270,953 12,450
Number — Barrels (empty) all kinds	16,628 5,771 2,500	2,551 5,000
Feet — Lumber 1 horse and 2 wagons	91,908	27,565 2,750

J. W. SULLIVAN, Collector.

Of the Tonnage of Articles Arrived and Cleared at the Port of Middletown on the Miami & Erie Canal, for the Year ending November 15, 1906.

	. COLLECTIONS.		
Rents		\$5,589	65
Tolls		102	36
	-		_
Sent t	o State Treasurer	\$5,692	01

Articles.	Arrived.	Cleared.
Pounds — Brass and zinc Baggage and furniture Acid Iron	4,480	3,947 16,560 49,704
Steel Lead Machinery Merchandise Paper Paper stock	300 156,092 37,617	4,860 1,365 2,425 34,445 182,040 28,083
Paper bags Sugar Tar Sundries		
Number — Barrels (empty) Carboys M. T	625	308 23
Feet — Lumber	3,931	

E. C. BOOTH, Collector.

STATEMENT

Of the Tonnage of Articles Arrived and Cleared at the Port of Dayton on the Miami & Erie Canal, for the Year ending November 15, 1906.

Articles.	Arrived.	Cleared.
Pounds — Cement Jute Iron pipe Merchandise Paper, manufactured		6,400 5,000 800 330,290 2,525,298
Number — Barrels (empty)		2

ELMER WOMBOLD, Collector.

Of the Tonnage of Articles Arrived and Cleared at the Port of Pique on the Miami & Erie Canal, for the Year ending November 15, 1906.

Articles.	Arrived.	Cleared.
Pounds — Sand		1,080,000
Number — Brick		90,000
Feet — Lumber		6,000
Perches — Stone		72

F. C. DAVIES, Collector.

STATEMENT

Of the Tonnage of Articles Arrived and Cleared at the Port of Delphos on the Miami & Erie Canal, for the Year ending November 15, 1906.

. Articles.	Arrived.	Cleared.
On account canal being out of repair and water being out for repairs, nothing arrived or cleared		

Jos. A. CLAYPOOL, Collector.

Of the Tonnage of Articles Arrived and Cleared at the Port of Defiance on the Miami & Eric Canal, for the Year ending November 15, 1906.

Articles.	Arrived.	Cleared.
Barrels —		
Ale and beer kegs		125
Oil	11	[
Lime and cement	212 28]
Sait	40	
Pounds —		
Baggage and furniture		150-
Merchandise	160	
Number —		
Kegs (empty)		240
Brick		175
Lath		
Shingles	270	
Cubic Feet -	-	
Ship timber		12,000
Lumber		240,000
Timber (logs)	230,000	114,000
Cords —		
Wood	116	218
	110	210

H. W. MEYERS, Collector

STATEMENT

Of the Tonnage of Articles Arrived and Cleared at the Port of Napoleon, on the Miami & Erie Canal, for the Year ending November 15, 1906.

Articles.	Arrived.	Cleared.
Barrels — Flour		20
Pounds — Hay Sand	176,820	8,000 303,120
Number — R. R. ties		430
Feet — Lumber Logs, cubic feet	6,000	353,000 40,000
Cords — Wood		284

D. H. HANCOCK, Collector.

Of the Tonnage of Articles Arrived and Cleared at the Port of Toledo on the Miami & Erie Canal, for the Year ending November 15, 1906.

Heydik (C) (1) Hereine	Arrived.	Cleared.
Bushels — Grain	7,500	
Pounds — Hay Merchandise Plaster	1	1,500 40,000
Number — Barrels (empty) and cases Lath Posts	90	5,000 50
Feet —	425,000	3,500
Cords — Wood	608	

CHAS. WITTICH, Collector.

REPORT

OF THE

Board of Public Works

AND

Chief Engineer of Public Works

ON THE WORK OF

Canal Land Department

FOR THE

Year Ending Nov. 15, 1906.

(189)

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Office of the Board of Public Works. Columbus, Ohio, November 15, 1906.

To his Excellency, Andrew L. HARRIS, Governor of Ohio.

SIR:—I have the honor to transmit to you herewith the report of the Board of Public Works and the Chief Engineer of Public Works on the work of the Canal Land Department, for the fiscal year ending November 13th, 1906.

GEO. H. WATKINS,

President Board of Public Works.

CANAL LAND DEPARTMENT.

By the provisions of Section 3 of the act of the General Assembly of Ohio, passed April 2nd, 1906, the duties heretofore performed by the Ohio Canal Commission, were transferred to and vested in the Board of Public Works.

In accordance with the provisions of this act, the Canal Commission formally transferred all books, records, documents, papers, surveys, maps, plats, furniture, and other property of the state in its possession, to the Board of Public Works on the 28th day of April, 1906.

As the work of determining the titles of state canal property is often quite difficult, it was determined wise to retain the working force that had assisted the Canal Commission in the work of that department.

While this work has increased the duties of the Board and Chief Engineer to a considerable extent, it has been carried on in a manner that is quite satisfactory, as the results show.

FINANCIAL SATEMENT.

The following statement shows the number and value of leases and sales made by the Board for the six and one-half months ending November 15th, 1906, also the number and value of leases and sales made by the Ohio Canal Commission for the preceding five and one-half months.

LAND LEASES BY THE BOARD OF PUBLIC WORKS.

Seven (7) land leases were granted on the Miami and Erie Canal at a Total valuation of	\$2,650 00
Sixty-seven land leases were granted on the Ohio Canal at a total val- uation of	20,957 00
LANDS SOLD BY THE BOARD OF PUBLIC WORKS.	
Three tracts of land on the Ohio Canal were sold at a total valuation of	\$2,170 0 0
LANDS LEASED BY THE CANAL COMMISSION.	
Fifty-three leases were made by the Ohio Canal Commission prior to	
May 1, 1906, at a total valuation of	\$34,009 00
One sale of land was made by the Ohio Canal Commission (public	1 000 00
auction) at a valuation of	1,980 00

RECAPITULATION.

Total value of lands leased by the Canal Commission and Board of	f
Public Works for the year ending Nov. 15, 1906	. \$57,616 00

LANDS SOLD.

Total value of lands sold by the Canal Commission and Board of Public Works for the year ending Nov. 15, 1906	\$4,150	00
RECEIPTS FROM LEASES AND SALES.		
Rentals were received from lands leased on the M. & E. Canal, including \$6,787.81 oil royalties, amounting to	\$26,830 8,970	
Total collections from land leases	\$35,800 4,150	
Total receipts from rentals and sales	\$39,950	96

Quite a number of collections were made by the Canal Collectors too late to be reported before the close of the fiscal year on November 15, 1906, and the same will appear in our next report.

GEO. H. WATKINS,
W. KIRTLEY, JR.,
B. W. BALDWIN,
Board of Public Works.
CHAS. E. PERKINS,
Chief Engineer Public Works.

Columbus, Ohio, November 15, 1906.

Fifth Annual Report

OF THE

PARK BOARD

(195).

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FIFTH ANNUAL REPORT OF THE PARK BOARD.

HON. ANDREW L. HARRIS, Governor of Ohio.

Six:—The Board of Public Works of Ohio and the Chief Engineer of Public Works, acting jointly as the "Park Board" pursuant to an act of the 75th General Assembly of Ohio, vide Laws of Ohio, Vol. 95, pp. 227, 283 et seq., providing that the said Joint Board shall make annual report to the Governor (to be included in the report of the State Board of Public Works) setting forth, the action of said joint board on all matters pertaining to the management and control of all State reservoirs lakes and lands set apart for public parks and pleasure resorts, including a statement of all receipts and expenditures, have the honor to present herewith their fifth annual report for the fiscal year ending on the 15th day of November, 1906.

SECRETARY'S REPORT.

The Secretary's report herewith filed, shows the year ending November 15, 1906.	following	for	the fis	cal.
Balance on hand November 15th, 1905			\$2.804	84-
Amount received from leases of state lands and fees on boa		• • •	φ2,001	٠.
Buckeye Lake	\$4,233	24		
Portage Lakes	1,069			
Indian Lake	956			
Celina Grand Reservoir	298			
-		_	6,556	74:
		_	<u>·</u>	
Total			\$9,361	61 L
EXPENDITURES.				
Buckeye Lake	\$1,495	69		
Portage Lakes	560	37	•	
Indian Lake	200	00		
Celina Grand Reservoir	145	15		
		_	\$2,401	21-
Balance on hand November 15, 1906			\$6,960	40 ·

By an act of the 77th General Assembly, passed April 2, 1906, all monies-collected from leases and boat licenses must be expended for improvements upons the Park from which it is collected.

During the past year the Park Board prepared and had printed in pamphlet form, 3000 copies of Rules and Regulations governing the navigation of the-public parks, and distributed them among lessees and those operating boats-upon the waters of the public parks of the State.

Respectfully submitted,

GEO. H. WATKINS,
W. KIRTLEY, JR.,
B: W. BALDWIN,
Board of Public Works of Ohio.
CHAS E. PERKINS,
Chief Engineer of Public Works.

Columbus, Ohio, November 15, 1906.

